

TestAmerica Laboratories, Inc.

# ANALYTICAL REPORT

I12-020

Lot #: F2D120462 SDG #: SL1265

Scot Fitzgerald

CH2M Hill Plateau Remediation PO Box 1500, MS B6-06 Richland, WA 99352

TESTAMERICA LABORATORIES, INC.

Jayna Awalt Project Manager

April 30, 2012

TestAmerica Laboratories, Inc.

# <u>TestAmerica</u>

THE LEADER IN ENVIRONMENTAL TESTING

#### CASE NARRATIVE

CH2MHill Plateau Remediation Company

P.O. Box 1600

MS B3-60

Richland, Washington 99352

April 30, 2012

Attention: Scot Fitzgerald

SDG

: SL1265

Number of Samples

: 25 samples

Sample Matrix

: Water

Data Deliverable

: Summary

Date SDG Closed

: April 18, 2012

#### II. Introduction

Between April 12, 2012 and April 18, 2012, 25 water samples were received by TestAmerica - St. Louis for chemical analysis. The samples were received within temperature criteria. See the COC and CUR forms for documentation of any variations on receipt conditions and temperature. Upon receipt, the samples were given laboratory Ids to correspond with specific client Ids. Please refer to the Sample Summary sheets attached to this case narrative. This report is incomplete without the narrative.

The following SAFs are associated with this SDG: I12-020, W12-004, I12-016, W12-003

# III. Analytical Results/ Methodology

The analytical results for this report are presented by analytical test. Each set of data includes sample identification information, analytical results and the appropriate detection limits. All results are based upon samples as they were received, i.e. wet weight, unless otherwise noted on the data sheets. See the attached Methods Summary Form for the methods used in this SDG.

MS/MSD/Dup analysis was done per the client requirements. Analytical batches that did not contain matrix QC were analyzed with a LCS/LCS duplicate.

Deviation from Request: None

#### IV. Definitions

QCBLK-

Quality Control Blank, Method Blank

QCLCS-

Quality Control Laboratory Control Sample, Blank Spike

DUP-

Laboratory Duplicate

MS-

Matrix Spike

MSD-

Matrix Spike Duplicate

The term "Detection Limit" used in the analytical data report refers to either the lab's standard reporting limits or contractually required reporting limits, whichever is applicable.

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The following data qualifiers may be applicable to the results in this report, as appropriate.

- B For inorganic analyses, the sample result is greater than the MDL but less than the RL.
- B For organic analyses, Method Blank contamination. The Method Blank contains the target analyte at a concentration above the MDL.
- J For organic analyses, the sample is estimated and less than the RL.
- C For inorganic analyses, Method Blank contamination. The Method Blank contains the target analyte at a concentration above the MDL.
- D For all analyses, the sample result was obtained from the analysis of a dilution.
- N For inorganics and GC analyses, the spike/spike duplicate recoveries are outside QC limits.
- T For GCMS analyses, the spike/spike duplicate recoveries are outside QC limits.

#### Volatiles

#### Batch: 2109084

The CCV recovery was outside the upper QC limit (greater than 20% D) for Bromomethane indicating a potential high bias for this analyte in the samples associated with this CCV. This analyte was not detected above the reporting limit in the associated samples.

# Affected Samples:

F2D120462 (1): B2KFW5

F2D120462 (2): B2KFW6

F2D130430 (1): B2KFX5

F2D170439 (1): B2KFF2

F2D170441 (1): B2K4B7

F2D170442 (12): B2L247

The MS recovery for Methylene chloride is outside the established QC limits. The RPD value for this analyte is within method acceptance criteria indicating possible matrix interference. Method performance is demonstrated by acceptable LCS recovery. This analyte has been qualified accordingly with a "T" flag in the associated samples.

## Affected Samples:

F2D120462 (1): B2KFW5

F2D120462 (2): B2KFW6

F2D130430 (1): B2KFX5

F2D170439 (1): B2KFF2

F2D170441 (1): B2K4B7

F2D170442 (12): B2L247

The MS/MSD RPD for 1,4-Dioxane is not within method acceptance criteria. MS/MSD recoveries are within QC limits demonstrating good extraction performance in the sample matrix.

#### Affected Samples:

F2D120462 (1): B2KFW5

F2D120462 (2): B2KFW6

F2D130430 (1): B2KFX5

F2D170439 (1): B2KFF2

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# CH2M Hill Plateau Remediation Company

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F2D170441 (1): B2K4B7 F2D170442 (12): B2L247

The samples were analyzed at a 25x dilution due to high concentrations of Carbon tetrachloride. The reporting limit has been adjusted only for this target reported from the dilution analysis. This analyte has been qualified accordingly with a "D" flag in the associated samples.

Affected Samples:

F2D120462 (2): B2KFW6 F2D130430 (1): B2KFX5

Batch: 2108089

The MS/MSD RPD for 1,4-Dioxane is not within method acceptance criteria. MS/MSD recoveries are within QC limits demonstrating good extraction performance in the sample matrix.

Affected Samples:

F2D120464 (1): B2L245 F2D130428 (1): B2L246

#### Semivolatiles

Batch: 2109120

Two liters were received for this sample. Three liters is the method suggested volume for sample, MS and MSD. Lab practice is to retain volume in case a QC failure requires a re-extraction. LCS/LCSD was performed to demonstrate accuracy and replicate precision in place of the MS/MSD.

Affected Samples:

F2D170439 (1): B2KFF2

The CCV recovery was outside the upper QC limit (greater than 20% D) for Famphur indicating a potential high bias for this analyte in the samples associated with this CCV. This analyte was not detected above the reporting limit in the associated sample.

Affected Samples:

F2D170439 (1): B2KFF2

Batch: 2111079

Three liters is the method suggested volume for sample, MS and MSD. Lab practice is to retain volume in case a QC failure requires a re-extraction. The MS/MSD was extracted at a lesser volume to preserve a liter for reanalysis.

Affected Samples:

F2D180412 (1): B2KL30

F2D180412 (2): B2KL50

F2D180412 (3): B2KL60

F2D180412 (4): B2KL70

F2D180412 (5): B2KL81



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F2D180412 (6): B2KL82

## GC Phenols

Batch: 2110096

Three liters is the method suggested volume for sample, MS and MSD. Lab practice is to retain volume in case a OC failure requires a re-extraction. The MS/MSD was extracted at a lesser volume to preserve a liter for reanalysis.

## Affected Samples:

F2D170442 (1): B2KK55 F2D170442 (2): B2KK67 F2D170442 (3): B2KK60 F2D170442 (4): B2KK12 F2D170442 (5): B2KKH1 F2D170442 (6): B2KK82 F2D170442 (7): B2KKH0 F2D170442 (8): B2KK17 F2D170442 (9): B2KK02 F2D170442 (10): B2KK34 F2D170442 (11): B2KK39

Sample surrogate recoveries are outside established QC limits. The sample was reprepared/reanalyzed outside hold time, but within the 2X hold time window. The reanalysis data had acceptable QC recoveries. Both sets of data were non-detect for target analytes. Per SDR 12-245, the original data, with the failing surrogate recoveries performed within hold time, has been reported.

# Affected Samples:

F2D170442 (11): B2KK39

## Pesticides

## Batch: 2109122

Two liters were received for these samples. Three liters is the method suggested volume for sample, MS and MSD. Lab practice is to retain volume in case a QC failure requires a re-extraction. LCS/LCSD was performed to demonstrate accuracy and replicate precision in place of the MS/MSD.

### Affected Samples:

F2D170439 (1): B2KFF2

The LCS and LCSD recovery for delta-BHC is outside the upper QC limits, indicating a potential positive bias for this analyte. This analyte was not detected above the reporting limit in the associated samples; therefore the sample data was not adversely affected by this excursion. The original sample results are provided.

## Affected Samples:

F2D170439 (1): B2KFF2



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The %D between the primary and secondary column result for beta-BHC and Aldrin is greater than 40%. SW method 8000C prescribes reporting the lower of the two column results in the absence of chromatographic anomalies observed on the column yielding the lower result. The lower result is reported.

Affected Samples:

F2D170439 (1): B2KFF2

Sample surrogate recovery is outside established QC limits. This excursion is attributed to a matrix interference which is physically evident in the sample. There is a chromatographic evidence of interference.

Affected Samples:

F2D170439 (1): B2KFF2

# **PAHs**

Batch: 2109121

Anthracene was detected in the method blank above the method detection limit but below the reporting limit. This analyte has been qualified accordingly with a "B" flag in the associated sample.

Affected Samples:

F2D170439 (1): B2KFF2

Two liters were received for these samples. Three liters is the method suggested volume for sample, MS and MSD. Lab practice is to retain volume in case a QC failure requires a re-extraction. LCS/LCSD was performed to demonstrate accuracy and replicate precision in place of the MS/MSD.

Affected Samples:

F2D170439 (1): B2KFF2

Several analytes detected in the associated samples were given the "S" qualifier. The "S" was used to designate positive analyte detection on the primary column that appeared questionable during spectral confirmation. The software used to perform the confirmation of hits reviews an overlay of the sample and the reference library spectra. The software evaluates the differences in the spectra and assigns a "match" value. Values above 700 are considered a confirmation and results are reported. Values under the 700 threshold are flagged with the "S" qualifier.

Affected Samples:

F2D170439 (1): B2KFF2

There were no observations or nonconformances for the following methods:

Total Sulfide



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I certify that this Summary Package is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. The Laboratory Manager or a designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Reviewed and approved:

Jayna Awilt St. Louis Project Manager

# SAMPLE ISSUE RESOLUTION

SIR NUM SDR12-245

REV NUM

**DATE INITIATED** 4/27/2012

### **SAMPLE EVENT INFORMATION**

**SAF NUM(S)** W12-004

OPERABLE UNIT(S) NONE

PROJECT(S) RCRA12

SAMPLE EVENT TITLE(S) RCRA12

**LABORATORY** TestAmerica St. Louis

#### **SAMPLING INFORMATION**

NUMBER OF SAMPLES 1

**SAMPLE NUMBERS** B2KK39

SAMPLE MATRIX WATER

**COLLECTION DATE** 4/13/2012 - 4/13/2012

SDG NUM SL1265

**ISSUE BACKGROUND** 

CLASS Laboratory Issue

TYPE Quality Control Failure

**DESCRIPTION** For Phenol analysis, sample surrogate recovery was outside the established QC limits. Sample was non-detect

and QC was within acceptance limits. Sample was reanalyzed outside the initial hold time but within two times

hold with acceptable surrogate recovery. Sample result was still non-detect with passing QC.

**DISPOSITION** 

**DESCRIPTION** PROPOSED DISPOSITION: TASL proposes to report the original analysis performed within hold time with

failing surrogate recovery and narrate the excursion in the case narrative.

**JUSTIFICATION** ACCEPTED DISPOSITION: Accept proposed resolution.

SUBMITTED BY: Jayna Awalt/TASL DATE: 4/27/12

ACCEPTED BY: Karen Waters-Husted DATE: 4/30/12

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# **METHODS SUMMARY**

#### SL1265

PARAMETER	ANALYTICAL METHOD	PREPARATION METHOD
Organochlorine Pesticides	SW846 8081A	SW846 3520C
Phenols by GC	SW846 8040A	SW846 3520
Polynuclear Aromatic Hydrocarbons by HPLC	SW846 8310	SW846 3510
Semivolatile Organic Compounds by GC/MS	SW846 8270C	SW846 3510C
Sulfide	SW846 9030	
Volatile Organics by GC/MS	SW846 8260B	SW846 5030B

## References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SL1265 : F2D120462

WO #_	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
MR0FX	001	B2KFW5	04/10/12	
MR0F1	002	B2KFW6	04/10/12	

## NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

SL1265 : F2D120464

 WO #
 SAMPLE#
 CLIENT SAMPLE ID
 SAMP
 DATE
 TIME

 MR0F6
 001
 B2L245
 04/10/12
 11:05

## NOTE(S):

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- This report must not be reproduced, except in full, without the written approval of the laboratory.
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SL1265 : F2D130428

 WO #
 SAMPLE#
 CLIENT SAMPLE ID
 SAMPLED DATE
 TIME

 MR069 001 B2L246
 04/11/12 13:16

## NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

SL1265 : F2D130430

 WO #
 SAMPLE#
 CLIENT SAMPLE ID
 SAMPLED DATE
 TIME

 MR07H
 001
 B2KFX5
 04/11/12
 13:16

## NOTE(S):

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- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
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SL1265 : F2D170439

 WO #
 SAMPLE#
 CLIENT SAMPLE ID
 SAMP
 DATE
 TIME

 MR2R6
 001
 B2KFF2
 04/13/12
 12:45

## NOTE(S):

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- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

SL1265 : F2D170441

 WO #
 SAMPLE#
 CLIENT SAMPLE ID
 SAMP
 DATE
 TIME

 MR2TD
 001
 B2K4B7
 04/13/12
 08:30

## NOTE(S):

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- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

SL1265 : F2D170442

WO #_	SAMPLE#	CLIENT	SAMPLE	ID			SAMPLED DATE	SAMP TIME
MR2TE MR2TG MR2TH MR2TJ MR2TK MR2TL MR2TM MR2TN MR2TP MR2TP MR2TQ MR2TR	001 002 003 004 005 006 007 008 009 010	B2KK55 B2KK67 B2KK60 B2KK12 B2KKH1 B2KK82 B2KKH0 B2KK17 B2KK02 B2KK34 B2KK39					04/13/12 04/12/12 04/13/12 04/13/12 04/13/12 04/13/12 04/13/12 04/12/12 04/12/12 04/13/12	10:51 09:29 09:12 08:13 09:42 12:09 09:42 09:51 14:17 08:56 09:46
MR2TT	012	B2L247					04/13/12	08:30

## NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

SL1265 : F2D180412

WO #_	SAMPLE#	CLIENT SAMPLE	E ID SAMPLED DATE	SAMP TIME
MR3E3	001	B2KL30	04/16/12	09:40
MR3E4	002	B2KL50	04/16/12	10:43
MR3E5	003	B2KL60	04/16/12	13:33
MR3E6	004	B2KL70	04/16/12	11:35
MR3E7	005	B2KL81	04/16/12	09:00
MR3FA	006	B2KL82	04/16/12	11:20

## NOTE(S):

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- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

		- CXX
CH2MHill Plateau I	Remediation	OV
Company		

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # I12-020-020

None

		SUZUE	<i>)</i>					Page 1 of 1	
Collector CHPRC				Contact/l	Requester Kare	en Waters-Husted	Telephone No. 376-	4650	
SAF No. 112-020					Origin Han	ford Site	Purchase Order/Charge C	Code 300071ES20	
Project Title	2Z	P1, APRIL 2012		Logbook	No. HNF-N-5	0644/51	Ice Chest No. GWS	-229-1_	
Shipped To (Lab) TestAmerica St. Louis				Method o	Method of Shipment Commercial Carrier Bill of Lading/Air Bill No. 7982				
Protocol	CE	RCLA		Priority:	45 Days	Offsite Property No.	o. NA		
	active M			d for transportation per 49 C	RF but are not	SPECIAL INSTRUCTIONS 200 Area Generator Knowledge Infor The CACN for all analytical work at	mation Form applies.	al Activity Exemption: Yes ✓ No □	
Sample No.	Filter	* Date	Time	No/Type Container		Sample Analysis	Holding Time	Preservative	
B2KFW5	N	WAPR 1 0 2012	0710	4x40-mL aGs*	8260_VOA_GCM	S: List-2 (55)	14 Days	HCl or H2SO4 to pH <2/Cool~4C	
B2KFW5	N	VAPR 1 0 2012	0710	3x500-mL G/P	9030_SULFIDE: S	Sulfide (1)	7 Days	ZnAc+NaOH to pH > 9/Cool~4C	

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	550 B	1//	APR 1 1 2012 0830	DON BROTHERTON /	SHIPRC BY	APR 1 1 2017	0830	SO = Solid SL = Sludge	T WI	= Tissue = Wipe	erica
-	Relinquished By		Date/Time	Received By		Date/Tir	ne	W = Water	L	= Liquid	Ċ
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A-6004-842 (REV 2)

6 Months

PRINTED ON 3/5/2012

B2KFW5

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		SL1265					Page 1 of 1						
CollectorwiCINTY	E/CH	PRC				Contact/I	Requester	Kare	en Waters-Husted	Telephone No.	376-40	650	
SAF No.	I12	-020				Sampling	Origin	Han	ford Site	Purchase Orde	r/Charge Co	ode 300071ES20	
Project Title	2ZI	P1, A	PRIL 2012	Logbook No. HNF-N-506 44 /5					06 44 151	Ice Chest No.	BWS	-229-1	
Shipped To (Lab)	Tes	stAm	erica St. Lou	s		Method of Shipment Commercial Carrier				Bill of Lading	Bill of Lading/Air Bill No. 7982 7/63 5784		
Protocol	CE	RCL	A	_		Priority:	45 Days			Offsite Proper		-14	
** ** Contains Radio releasable per DOE C	active Ma	terial a	at concentations tha	t are not regulated	for transporta	tion per 49 C	RF but are not	a)	SPECIAL INSTRUCTIONS 200 Area Generator Knowledge Informa The CACN for all analytical work at WS		Total	Activity Exemption: Yes 🗹 No	
Sample No.	Filter	*	Date	Time	No/Type (	Container			Sample Analysis	Holdin	Time	Preservative	
B2KFW6	N	W	APR 1 0 20	2 1105	4x40-m	ıL aGş*	8260_VOA_GCMS: List-2 (55)		14 [	ays	HCl or H2SO4 to pH <2/Cool~4		
B2KFW6	N		APR 1 0 201		3x500-i	mL G/P	9030_SULF	IDE: S	Sulfide (1)	7 0	ays	ZnAc+NaOH to pH > 9/Cool~40	
B2KFW6	N	W	APR 10 201	1 1105	1x20-	-mL P	P Activity Scan			6 Ma	nths	None	

Relinquished By	Print Sign	Date/Time /335	Received By	Print	Sign	APR 1 0 2012	-	Matri	x *	
AL MCINTYRE / C	none way	APR 1 0 2012	Received By DON BROTHER	TON/CHPRC <		Date/Time	S SE SO	<ul><li>Soil</li><li>Sediment</li><li>Solid</li></ul>	DS DL T	<ul><li>Drum Solids</li><li>Drum Liquids</li><li>Tissue</li></ul>
Relinquished By	7	Date/Time	Received By	رب		APR 1 1 2012 083	S <sub>SL</sub> W O	<ul><li>Sludge</li><li>Water</li><li>Oil</li></ul>	WI L V	<ul><li>Wipe</li><li>Liquid</li><li>Vegetation</li></ul>
DON BROTHERTON Relinquished By	ī.c	+ 70 11 1	Received By	0.6	No.	Date/Time	A	= Air	Х	= Other
FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return	to customer, per lab procedure, used in proce		in self	Disposed By	4.12.12 0930		Date/	Time	
							_	1 0001 01		

A-6004-842 (REV 2)

Print page | Close O



# **Detailed Results**

Tracking no.: 798271635784

Select time format: 12H

# **Delivered**

**Delivered**Signed for by: B.DANIELS

Shipment Dates

Destination

Ship date Apr 11, 2012 Delivery date Apr 12, 2012 9:30 AM

EARTH CITY, MO Signature Proof of Delivery

**Shipment Options** 

Hold at FedEx Location

Hold at FedEx Location service is not available for this shipment.

Shipment Facts

Service type Weight

Priority Overnight 39.0 lbs/17.7 kg

Delivered to Reference

Shipping/Receiving GWS-229-1

#### **Shipment Travel History**

Select time zone: Local Scan Time

All shipment travel activity is displayed in local time for the location

Date/Time	Activity	Location	Details	
Apr 12, 2012 9:30 AM	Delivered	EARTH CITY, MO		
Apr 12, 2012 6:54 AM	On FedEx vehicle for delivery	EARTH CITY, MO		
Apr 12, 2012 6:47 AM	At local FedEx facility	EARTH CITY, MO		
Apr 12, 2012 5:14 AM	At destination sort facility	BERKELEY, MO		
Apr 12, 2012 4:29 AM	Departed FedEx location	MEMPHIS, TN		
Apr 12, 2012 12:59 AM	Arrived at FedEx location	MEMPHIS, TN		
Apr 11, 2012 5:07 PM	Left FedEx origin facility	PASCO, WA		
Apr 11, 2012 3:36 PM	Picked up	PASCO, WA		
Apr 11, 2012 11:27 AM	Shipment information sent to Fed			

	APR	RIL 30, 2012	TestAmerica - St. Louis				
TestAme	Prico Lot	#(s): F2N2046Z	1464				
162174116	FICO						
THE LEADER IN ENVIRONM	ENTAL TESTING CUR Form #: 4 8	7					
CONDITION I	JPON RECEIPT FORM						
Client:		<b>P</b>					
Quote No:	90029						
COC/RFA No:	Below						
		- 4 0	12 ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~				
Initiated By:		Date: 4.62.	12 Time: 0930				
CI ,		oing Information	W. 15.1				
•••	edEx) UPS DHL Courier Clie		Multiple Packages: Y (N)				
Shipping # (s):*	2,12 6704		Sample Temperature (s):**				
	•						
5	10.	**Sample must be received at 4	5. 10.  °C ± 2°C- If not, note contents below. Temperature				
*Numbered shipping lines	correspond to Numbered Sample Temp lines	variance does NOT affect the for Perchlorate	ollowing: Metals-Liquid; Rad tests- Liquid or Solids;				
Condition (Circle "Y"	for yes, "N" for no and "N/A" for not applicable):	reichiolate					
1. W N	Are there custody seals present on the	8. (Y) N	Are there custody seals present on bottles?				
	cooler?  Do custody seals on cooler appear to be		Do custody seals on bottles appear to be				
2. Y (N) N/A	tampered with?	9. Y N/A	tampered with?				
3. (Y) N	Were contents of cooler frisked after opening, but before unpacking?	10. Y N N/A	not, make note below)				
4. (Y) N	Sample received with Chain of Custody	? 11. Y N N	Containers for C-14, H-3 & I-129/131 marked with "Do Not Preserve" label?				
5. 💮 N N/A	Does the Chain of Custody match sample ID's on the container(s)?	le 12. (y) N	Sample received in proper containers?				
6. YO	Was sample received broken?	13. YN N/A	Headspace in VOA or TOX liquid samples? (If Yes, note sample ID's below)				
7. (Y) N	Is sample volume sufficient for analysis	? 14. Y N (N/A)	Was Internal COC/Workshare received?				
	ANL, Sandia) sites, pH of ALL containers received	must be verified, EXCEPT VOA,	TOX, Oil & Grease and soils.				
Notes:	F12-020-020,	02/					
·	W12-004-170						
	1						
	Sue date per JA.						
_							
Corrective Action:		I.C. 11					
Client Contact N  Sample(s) proces		Informed by:					
Sample(s) on hold until:  If released, notify:							
Project Management		Date: 4/	17/12 ETEB BY SOMEONE OTHER THAN THE INITIATOR, THEN				
	ED TO APPLY THEIR WITIAL AND THE DATE NEXT ADMIN-0004 rev13, REVISED 05/27	TO THAT ITEM.					

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CH2MHill Pla Company	nteau Remediation SU216	5 July	CHAI	N OF CUST	TODY/SAMPLE ANA	ALYSIS REQUEST	C.O.C.# W12-004-170
Collector	RE/CHPRC	- N	Contact/F	Requester Kar	en Waters-Husted	Telephone No. 376-4650	Page 1 of 1
SAF No.	W12-004		Sampling	Origin Har	aford Site	Purchase Order/Charge Code	300071ES20
Project Title RCRA, APRIL 2012 Logbook				No. HNF-N-	506 4415	Ice Chest No. GWS 229	7-1
Shipped To (Lab)	TestAmerica St. Louis		Method o	f Shipment Co	mmercial Carrier		982 7/63 5784
Protocol	RCRA		Priority:	45 Days		Offsite Property No.	4
** ** Contains Radioa	LE HAZARDS/REMARKS ctive Material at concentations that a der 5400 5 (1990/1993)	ire not regulated for transpor	rtation per 49 Cl	RF but are not	SPECIAL INSTRUCTIONS Site Wide Generator Knowledge Informa The CACN for all analytical work at WS	tion Form applies.	ity Exemption: Yes 🗹 No 🗌
Sample No.	Filter * 4-1600 12	Time No/Type	e Container		Sample Analysis	Holding Time	Preservative
B2L245	N WARR TO TOTAL	1105 1x2	0-mL P	Activity Scan		6 Months	None
B2L245	N WAPR 10 2012		mL aGs*	8260_VOA_GCM	S: List-2 (26)	14 Days HC	I or H2SO4 to pH <2/Cool~4C

Relinquished By Print	/ Sign	Date/Time /335	Received By	Print Sign	Date/Time /335	Ma	ntrix *
AL MCINTYRE / CHPRC	Major	APR 1 0 2017	55U #		APR 1 0 2012	S = Soil SE = Sediment	DS = Drum Solids DL = Drum Liquids
Relinquished By  SSU # 1		APR 1 1 2012 0830	Received By  DON BROTHERTON / CHP	PRC DUBER	Date/Time 2012 68-30	SO = Solid SL = Sludge	T = Tissue WI = Wipe
Relinquished By ODON BROTHERTON / CHPRC	no 1		Received By	EY	Date/Time	W = Water $O = Oil$ $A = Air$	$egin{array}{lll} L &=& \mbox{Liquid} \\ V &=& \mbox{Vegetation} \\ X &=& \mbox{Other} \\ \end{array}$
Relinquished By Fed Ex		Date/Time	Received By  5-Wilson	sieto Bo	Date/Time 4-12-12 0930		
	e.g., Return to custo	omer, per lab procedure, used in proce	ess)	Disposed By	4	D	ate/Time





**Detailed Results** 

Tracking no.: 798271635784

Select time format: 12H

# **Delivered**

**Delivered**Signed for by: B.DANIELS

Shipment Dates

Destination

EARTH CITY, MO

Ship date Apr 11, 2012 Delivery date Apr 12, 2012 9:30 AM

Signature Proof of Delivery

**Shipment Options** 

Hold at FedEx Location Hold at FedEx Location service is not available for this shipment.

Shipment Facts

Service type Weight

Priority Overnight

Delivered to

Shipping/Receiving

Shipment Travel History

Select time zone: Local Scan Time

All shipment travel activity is displayed in local time for the location

Date/Time	Activity	Location	Details	
Apr 12, 2012 9:30 AM	Delivered	EARTH CITY, MO	-	
Apr 12, 2012 6:54 AM	On FedEx vehicle for delivery	EARTH CITY, MO		
Apr 12, 2012 6:47 AM	At local FedEx facility	EARTH CITY, MO		
Apr 12, 2012 5:14 AM	At destination sort facility	BERKELEY, MO	2	
Apr 12, 2012 4:29 AM	Departed FedEx location	MEMPHIS, TN	3	
Apr 12, 2012 12:59 AM	Arrived at FedEx location	MEMPHIS, TN	,	
Apr 11, 2012 5:07 PM	Left FedEx origin facility	PASCO, WA	*	
Apr 11, 2012 3:36 PM	Picked up	PASCO, WA		
Apr 11, 2012 11:27 AM	Shipment information sent to Fed	Ex		

			APRIL 3	30, 2	012	TestAmerica - St. Louis	
Ta	estAme	arica	Lot #(s)	FZ	D120462	7.1464	
	2012-41 1 1C						
THE	LEADER IN ENVIRONM	MENTAL TESTING	CUR Form #: 4 8 7				
C	CONDITION	UPON RECE	IPT FORM	10-1-1-1			
	Client:	CHPRC					
	Quote No:	9002	3				
	COC/RFA No:	777					
Initi	ated By:			Date:	4.62.	12 Time: 0930	
			Shipping				_
	Shipper: F	edEx) UPS	DHL Courier Client	Other:		Multiple Packages: Y (N)	)
	ping # (s):*	_				Sample Temperature (s):**	
1,	1982	7163 578	<u>4</u> 6			1 6	
2.						2 7	
3.		action at 31 mendality and analysis of a				3 8	
4.						4 9	
5.			10.			5. 10.	
*Nun	bered shipping line	s correspond to Nun				4°C ± 2°C- If not, note contents below. Temperature ollowing: Metals-Liquid; Rad tests- Liquid or Solids;	
				rchlorate			
1.	© N		ody seals present on the	8.	Ŋ N	Are there custody seals present on bottles	?
2.	Y N N/A	Do custody se tampered with	als on cooler appear to be?	9.	Y N/A	Do custody seals on bottles appear to be tampered with?	
3.	Y) N		of cooler frisked after efore unpacking?	10.	N N/A	Was sample received with proper pH <sup>1</sup> ? (Innot, make note below)	P
4.	M N	Sample receiv	ed with Chain of Custody?	11.	Y N NA	Containers for C-14, H-3 & I-129/131 marked with "Do Not Preserve" label?	
5.	Ø N N/A	Does the Chai ID's on the co	n of Custody match sample ntainer(s)?	12.	Ø N	Sample received in proper containers?	
6.	YO	Was sample re	eceived broken?	13.	YN N/A	Headspace in VOA or TOX liquid sample (If Yes, note sample ID's below)	s?
7.	O) N	Is sample volu	me sufficient for analysis?	14.	Y N (N/A)	Was Internal COC/Workshare received?	
		ANL, Sandia) sites,	pH of ALL containers received must	be verifie	ed, EXCEPT VOA,	TOX, Oil & Grease and soils.	
Not	es:	—————	12-020-020, 92			<del>.</del>	
			V12-004-170				20.0
	-					The state of the s	
	, , , , , , , , , , , , , , , , , , , ,	due det	e per JA.				71300
					· · · · · · · · · · · · · · · · · · ·		
	····						
	ective Action: Client Contact N	Jame:		Info	rmed by:		
	Sample(s) proce			111101	inica by.		
	Sample(s) on ho		N / A / If i	eleasec	l, notify:	/ /	

Project Management Review:

Date:

### Date: #

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PRI
L 30

CH2MHill Pla Company	iteau (1	Rei U	nediation 29	31215	C	CHAI	N OF CUST	TODY/SAMPLE	ANALY	YSIS REQU	JEST	C.O.C.# W12-004-171 Page 1 of 1
	FM	Ha			T	C440		- W W 1		Tr.L., b., N	256 4650	Page 1011
Collector	CH	PR	<b>`</b>			Contact/1	Requester Kan	en Waters-Husted		Telephone No.	376-4650	8
#SAF No.	W12	2-00	4		S	Sampling		nford Site		Purchase Order	Charge Code	300071ES20
Project Title	RCF	ŁΑ, .	APRIL 2012			Logbook	No. HNF-N-	50645/74		Ice Chest No.	GWS-21	5
Shipped To (Lab)	Test	Am	erica St. Lou	is		Method o	of Shipment Co	mmercial Carrier		Bill of Lading/A	ir Bill No. 7934	4630 6690
Protocol	RCF	RA.				Priority:	45 Days			Offsite Property	11.	
POSSIBLE SAMPI ** ** Contains Radioac releasable per DOE Or	ctive Mat	erial a	t concentations that		for transportation	on per 49 C	RF but are not	SPECIAL INSTRUCTIO Site Wide Generator Knowledg The CACN for all analytical wo	e Information Fo		Total Activity I	Exemption: Yes V No
Sample No.	Filter	*	Date	Time	No/Type C	ontainer		Sample Analysis		Holding 7	l'ime	Preservative
B2L246	N	W	4/11/12	1316	1x20-r	nL P	Activity Scan			6 Mon	ths	None
B2L246	N	W	1	V	4x40-ml	L aGs*	8260_VOA_GCM	S: List-2 (26)		14 Da	ys HCl or	H2SO4 to pH <2/Cool~4C

Relinquished By Print	Sign Date/Time 15/5	Received By	Print	Sign	Date/Time 1515	Mati	rix *	
FM Hall CHPRC	APR 1 1 2012	55U#1		APR	1 1 2012	S = Soil	DS = Drum Solids	
Relinquished By	Date/Time	Received By	/ 2/		Date/Time	SE = Sediment SO = Solid	DL = Drum Liquids	
S5U#	APR 1 2 2012 / 07(0	KC Patterson CHPRC	2	- APR	122012/02/0	SL = Sludge	T = Tissue WI = Wipe	
Relinquished By	APR 1 2 2012 / 201	Received By			Date/Time	W = Water O = Oil	L = Liquid V = Vegetation	
o KC PattersonC	- AFR 12 2012/1500	FEDEX	~~	, .		A = Air	X = Other	
Relinquished By	Date/Time	Received By AS May	fl	4/13/	Date/Time			
rea ex		OWENS LA	wo	1712	0750			
The state of the s	g., Return to customer, per lab procedure, used in proce	ess)	Di	isposed By		Date	e/Time	
DISPOSITION								1





**Detailed Results** 

Tracking no.: 793446306690

Select time format: 12H

## **Delivered**

**Delivered**Signed for by: B.DANIELS

Shipment Dates

Ship date Apr 12, 2012 Delivery date Apr 13, 2012 9:28 AM

EARTH CITY, MO

Signature Proof of Delivery

#### **Shipment Options**

#### Hold at FedEx Location

Hold at FedEx Location service is not available for this shipment.

#### Shipment Facts

Service type Weight

Priority Overnight 20.0 lbs/9.1 kg

Delivered to Reference

Shipping/Receiving GWS-215

#### Shipment Travel History

Select time zone: Local Scan Time

All shipment travel activity is displayed in local time for the location

Date/Time	Activity	Location	Details	
Apr 13, 2012 9:28 AM	Delivered	EARTH CITY, MO	*	
Apr 13, 2012 7:32 AM	On FedEx vehicle for delivery	EARTH CITY, MO		
Apr 13, 2012 7:25 AM	At local FedEx facility	EARTH CITY, MO		
Apr 13, 2012 5:41 AM	At destination sort facility	BERKELEY, MO		
Apr 13, 2012 4:45 AM	Departed FedEx location	MEMPHIS, TN		
Apr 13, 2012 12:42 AM	Arrived at FedEx location	MEMPHIS, TN		
Apr 12, 2012 5:05 PM	Left FedEx origin facility	PASCO, WA	-2	
Apr 12, 2012 4:19 PM	Picked up	PASCO, WA	-	
Apr 12, 2012 11:23 AM	Shipment information sent to Fed	Ex	_	

TestAme	APRIL 3  Lot #(s)	FAN 100.1	Z8 TestAme	rica - St. Louis
THE LEADER IN ENVIRONM		TAB150	100°	
Client: ( Quote No:	PON RECEIPT FORM  HPRC  90029  1/2-020-022 / W/12-004-1	<del></del>	Time	0930
minated by.		Information	rinie.	0100
Shipping # (s):*	edEx UPS DHL Courier Client	Other:	Multiple Pagample Temperature	
1. 7934 44	<u>630 6690 6</u>		^	6,
			2.	
			3.	
			4	
	10.		5	10.
	correspond to Numbered Sample Temp lines va	Sample must be received at 4 riance does NOT affect the fo erchlorate		
1. (Y) N	Are there custody seals present on the cooler?	8. (Y) N	Are there custody s	eals present on bottles?
2. Y NN/A	Do custody seals on cooler appear to be tampered with?	9. Y N N/A	tampered with?	bottles appear to be
3. Y N	Were contents of cooler frisked after opening, but before unpacking?	10. (Y) N N/A	not, make note below)	ed with proper pH'? (If
4. YN	Sample received with Chain of Custody?	11. Y N N/A	Containers for C-14 marked with "Do N	
5. Y N N/A	Does the Chain of Custody match sample ID's on the container(s)?	12. Y N	Sample received in	proper containers?
6. YN	Was sample received broken?	13. Y N N/A	Headspace in VOA (If Yes, note sample ID	or TOX liquid samples? 's below)
7. Y N	Is sample volume sufficient for analysis?	14. Y N N/A	Was Internal COC/	Workshare received?
For DOE-AL (Pantex, L. Notes:	ANL, Sandia) sites, pH of ALL containers received must	be verified, EXCEPT VOA, T	OX, Oil & Grease and soi	ls.
			-	-

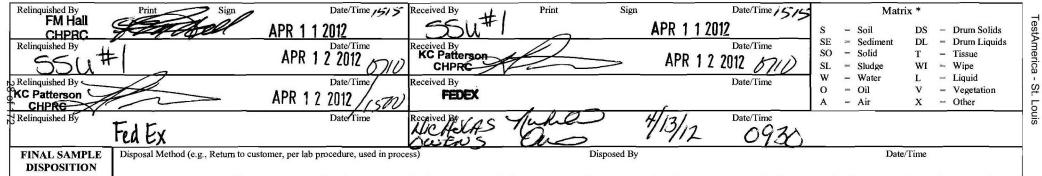
Corrective Action: Client Contact Name: Informed by: Sample(s) processed "as is" Sample(s) on hold until: If released, notify: Li

Project Management Review:

THIS FORM MUST BE COMPLETED AT THE TIME THE ITEMS ARE BEING CHECKED IN. IF ANY ITEM IS COMPLETED BY SOMEONE OTHER THAN THE INITIATOR. THEN THAT PERSON IS REQUIRED TO APPLY THEIR INITIAL AND THE DATE NEXT TO THAT ITEM.

ADMIN-0004 rev13, REVISED 05/27/11 \Sisvr01\Qa\FORMS\ST-LOUIS\ADMIN\Admin-0004 CUR.doc

CH2MHill Pl Company					<i>ร</i> นฆร	(	CHAIN	OF C	UST	ODY/SAMPLE AI	NALY	SIS REQUEST		C.O.C.# I12-020-022
			_	رد										Page 1 of 1
Collector	100	Hall PRC			-		Contact/R	Requester	Kare	n Waters-Husted		Telephone No. 376-40	650	
SAF No.	I12	-020		-			Sampling (	Origin	Hanf	ord Site		Purchase Order/Charge Co	de	300071ES20
Project Title	2ZI	1, A	PRII	2012			Logbook l	No. HN	F-N-50	06 45 174		Ice Chest No. GW	5-21	5
Shipped To (Lab)	Tes	tAm	erica	St. Lou	is		Method o	f Shipment	Con	nmercial Carrier		Bill of Lading/Air Bill No.	793	34 4630 6690
Protocol	CE	RCL	A		- Commence of the second secon		Priority:	45 Days					NA	, , , , , , , , , , , , , , , , , , , ,
POSSIBLE SAMP	LE HA	ZARI	DS/RE	MARKS						SPECIAL INSTRUCTIONS	Hold	Time Total	Activity 1	Exemption: Yes 🗸 No 🗌
** ** Contains Radio releasable per DOE C					at are not regulated	d for transportat	ion per 49 CI	RF but are not		200 Area Generator Knowledge Info The CACN for all analytical work at		n applies.		
Sample No.	Filter	*	I	Date	Time	No/Type C	Container			Sample Analysis	_	Holding Time		Preservative
B2KFX5	N	W	4/1	1/12	1316	4x40-m	L aGs*	8260_VOA	GCMS	: List-2 (55)		14 Days	HCl or	H2SO4 to pH <2/Cool~4C
B2KFX5	N	W	7	1/10	1010	3x500-r	nL G/P	9030_SULI	FIDE: S	ulfide (1)		7 Days	ZnAc-	NaOH to pH > 9/Cool~4C
B2KFX5	N	w		,	1/	1x20-	mL P	Activity Sca	an	-		6 Months		None



A-6004-842 (REV 2)

Print page | Close ©



**Detailed Results** 

Tracking no.: 793446306690

Select time format: 12H

## **Delivered**

**Delivered**Signed for by: B.DANIELS

Shipment Dates

Ship date Apr 12, 2012 Delivery date Apr 13, 2012 9:28 AM

EARTH CITY, MO Signature Proof of Delivery

Shipment Options

Hold at FedEx Location

Hold at FedEx Location service is not available for this shipment.

Shipment Facts

Service type Weight

Priority Overnight 20.0 lbs/9.1 kg

Delivered to Reference

Shipping/Receiving GWS-215

Shipment Travel History

Select time zone: Local Scan Time

All shipment travel activity is displayed in local time for the location

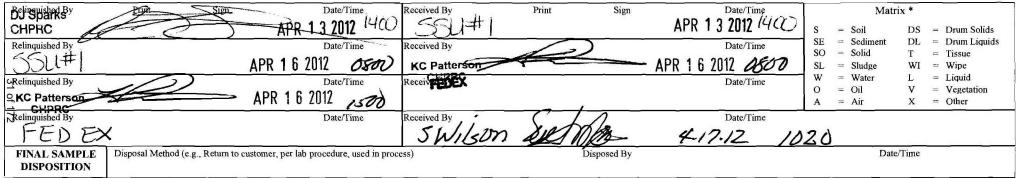
Date/Time	Activity	Location	Details	
Apr 13, 2012 9:28 AM	Delivered	EARTH CITY, MO	-	
Apr 13, 2012 7:32 AM	On FedEx vehicle for delivery	EARTH CITY, MO	<u>.</u>	
Apr 13, 2012 7:25 AM	At local FedEx facility	EARTH CITY, MO	*	
Apr 13, 2012 5:41 AM	At destination sort facility	BERKELEY, MO		
Apr 13, 2012 4:45 AM	Departed FedEx location	MEMPHIS, TN		
Apr 13, 2012 12:42 AM	Arrived at FedEx location	MEMPHIS, TN		
Apr 12, 2012 5:05 PM	Left FedEx origin facility	PASCO, WA		
Apr 12, 2012 4:19 PM	Picked up	PASCO, WA	2	-
Apr 12, 2012 11:23 AM	Shipment information sent to Fed	Ex		

Al I	RIL 30, 2012	TestAmerica - St. Louis		
TestAmerica Lo	ot #(s): F201304	750		
	5 FZD130~	730/		
THE LEADER IN ENVIRONMENTAL TESTING CUR Form #: 3 8	3			
CONDITION UPON RECEIPT FORM  Client:	<b>a</b>			
Quote No: 90029	<u>_</u>			
COC/RFA No: 1/2-020-022 / W/2-00	4-171			
Initiated By:	Date: 4/13/12	Time: 0930		
	oping Information			
Shipper: FedEx UPS DHL Courier Cl	ient Other:	Multiple Packages: Y N		
Shipping # (s):*		Sample Temperature (s):**		
1. 7934 He30 6690 6.		1. <u> </u>		
2 7		2 7		
3 8		3 8		
4 9		4 9		
5 10	***	510		
*Numbered shipping lines correspond to Numbered Sample Temp lines	variance does NOT affect the fo	°C ± 2°C- If not, note contents below. Temperature ollowing: Metals-Liquid; Rad tests- Liquid or Solids;		
Condition (Circle "Y" for yes, "N" for no and "N/A" for not applicable)	Perchlorate			
1. Y N Are there custody seals present on the cooler?	8. YN	Are there custody seals present on bottles?		
2. Y N/A Do custody seals on cooler appear to be tampered with?	9. Y N/A	Do custody seals on bottles appear to be tampered with?		
3. Y N Were contents of cooler frisked after opening, but before unpacking?	10. (Y) N N/A	Was sample received with proper pH <sup>1</sup> ? (If not, make note below)		
4. YN Sample received with Chain of Custod	y? 11. Y N (N/A)	Containers for C-14, H-3 & I-129/131 marked with "Do Not Preserve" label?		
5. Y N N/A Does the Chain of Custody match sam ID's on the container(s)?	ple 12. Y N	Sample received in proper containers?		
6. Y N Was sample received broken?	13. Y N/A	Headspace in VOA or TOX liquid samples? (If Yes, note sample ID's below)		
7. Y N Is sample volume sufficient for analys	is? 14. Y N N/A	Was Internal COC/Workshare received?		
<sup>1</sup> For DOE-AL (Pantex, LANL, Sandia) sites, pH of ALL containers receive	d must be verified, EXCEPT VOA,	TOX, Oil & Grease and soils.		
Notes:				
	<del></del>			
		Account to the second of the s		
	The second secon	<del></del>		
		<del></del>		
Corrective Action:				
Client Contact Name:	Informed by:			
☐ Sample(s) processed "as is" ☐ Sample(s) on hold until:	If released, notify:	,		
Project Management Review:	Date: 4/1	7/12		

THIS FORM MUST BE COMPLETED AT THE TIME THE ITEMS ARE BEING CHECKED IN. IF ANY ITEM IS COMPLETED BY SOMEONE OTHER THAN THE THAT PERSON IS REQUIRED TO APPLY THEIR INCIDENTAL AND THE DATE NEXT TO THAT ITEM.

ADMIN-0004 rev13, REVISED 05/27/11 \Sisvr01\QA\FORMS\ST-LOUIS\ADMIN\Admin-0004 CUR.doc

CH2MHill F Company		u Rer	nediation	(	E CHAI	N OF CUS	TODY/SAMPLE ANA	ALYSIS REQUEST			
SL126:				_					Page 1 of 1		
Collector DJ Sp	oarks RC				Contact/	Requester Ka	ren Waters-Husted	Telephone No. 376-	4650		
SAF No.		2-016			Sampling	Origin Ha	nford Site	Purchase Order/Charge Code 300071ES20			
Project Title	10	0NR2	, MARCH 20	012	Logbook	No. HNF-N-	-506 44 / 53	Ice Chest No. 6.00	5 103		
Shipped To (Lab	) Te	estAm	erica St. Lou	is_	Method	of Shipment Co	ommercial Carrier	Bill of Lading/Air Bill No.			
Protocol	CI	ERCL	A		Priority:	30 Days	PRIORITY	Offsite Property No.	Na		
releasable per DOE	ioactive M Order 54	faterial a 00 5 (19	t concentations tha 90/1993)	at are not regulated	for transportation per 49 C	RF but are not	SPECIAL INSTRUCTIONS 200 Area Generator Knowledge Informat The CACN for all analytical work at WS	ion Form applies.	al Activity Exemption: Yes 🗹 No 🗌		
Sample No.	Filter	*	Date	Time	No/Type Container		Sample Analysis	Holding Time	Preservative		
B2KFF2	N	w	4.13.12	1245.	2x1-L aG	8081_PEST_GC	C: List-1 (19)	14/40 Days	Cool<6C		
B2KFF2	N	W	1		*4x40-mL aGs* 、	8260_VOA_GCN	MS: List-2 (55)	14 Days	HCl or H2SO4 to pH <2/Cool~4C		
B2KFF2	N	W		\ .	. 3x1-L aG	8270_SVOA_GC	CMS_IX: List-1 (123)	7/40 Days	Cool~4C		
B2KFF2	N	W			2x1-L aG .	8310_SVOA_HF	PLC	14/40 Days	Cool~4C		
B2KFF2	N	W	V	1/	1x20-mL P	Activity Scan		6 Months	None		



Print

Sign

Date/Time

Received By

Matrix \*

Print page | Close ©



**Detailed Results** Tracking no.: 793457553416 Select time format: 12H Delivered **Delivered** Signed for by: B.DANIELS Shipment Dates Destination Ship date Apr 16, 2012 Delivery date Apr 17, 2012 10:23 AM EARTH CITY, MO Signature Proof of Delivery **Shipment Options** Hold at FedEx Location Hold at FedEx Location service is not available for this shipment. Shipment Facts Service type Priority Overnight Delivered to Shipping/Receiving Weight 50.0 lbs/22.7 kg Reference GWS-103 **Shipment Travel History** Select time zone: Local Scan Time All shipment travel activity is displayed in local time for the location

Date/Time	Activity	Location	Details	
Apr 17, 2012 10:23 AM	Delivered	EARTH CITY, MO		_
Apr 17, 2012 7:05 AM	On FedEx vehicle for delivery	EARTH CITY, MO		
Apr 17, 2012 6:59 AM	At local FedEx facility	EARTH CITY, MO		
Apr 17, 2012 5:10 AM	At destination sort facility	BERKELEY, MO		
Apr 17, 2012 4:30 AM	Departed FedEx location	MEMPHIS, TN	<del>- :</del>	
Apr 17, 2012 12:39 AM	Arrived at FedEx location	MEMPHIS, TN		
Apr 16, 2012 5:15 PM	Left FedEx origin facility	PASCO, WA	<del></del>	
Apr 16, 2012 4:06 PM	Picked up	PASCO, WA		7.
Apr 16, 2012 12:13 PM	Shipment information sent to Fed	Ex		

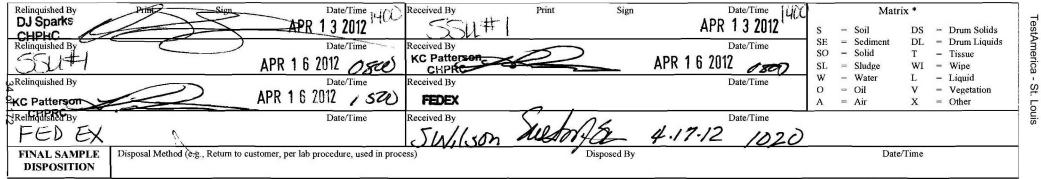
TestAme	Prica Lot #(s)		281704 4	TestAmerica - St. Louis		
THE LEADER IN ENVIRONM	ENTAL TESTING CUR Form #: 0 1 8	****		442		
Client: Quote No: COC/RFA No: Initiated By:	90029 Melow Shipping	Inform				
Shipper:	edEx UPS DHL Courier Client	Other:				
Shipping # (s):*  1. 7987	78NE 351%			sample Temperature (s):**		
2. 2	805 3840 6.			1. <u>2</u> 0		
3. 7934 ·	170) 1118			3. 2 8.		
4.	Farm VIII			4. 3 9.		
5.	10.			5 10		
	s correspond to Numbered Sample Temp lines va		es NOT affect the fo	°C ± 2°C- If not, note contents below. Temperature llowing: Metals-Liquid; Rad tests- Liquid or Solids;		
1. Y N	for yes, "N" for no and "N/A" for not applicable):  Are there custody seals present on the	8.	Ŷ N	A march and country could margaret on hostiles?		
	cooler?  Do custody seals on cooler appear to be			Are there custody seals present on bottles?  Do custody seals on bottles appear to be		
2. Y (N) N/A	tampered with?	9.	Y N3 N/A	tampered with?		
3. N	Were contents of cooler frisked after opening, but before unpacking?	10.	Y N N/A	Was sample received with proper pH¹? (If not, make note below)		
4. (Y) N	Sample received with Chain of Custody?	11.	Y N (N/A)	Containers for C-14, H-3 & I-129/131 marked with "Do Not Preserve" label?		
5. (E)N N/A	Does the Chain of Custody match sample ID's on the container(s)?	12.	N N	Sample received in proper containers?		
6. Y N	Was sample received broken?	13.	Y N N/A	Headspace in VOA or TOX liquid samples? (If Yes, note sample ID's below)		
7. (Y) N	Is sample volume sufficient for analysis?	14.	Y N (V/A)	Was Internal COC/Workshare received?		
Notes: W/	ANL, Sandia) sites, pH of ALL containers received must 12-004-042, 044, 037, 042, 046, 037, 042, 046, 037, 042, 046, 047, 047, 048, 048, 048, 048, 048, 048, 048, 048		136, 049, 04			
			<del></del>			
			Э.			
Corrective Action:						
☐ Client Contact N☐ Sample(s) proces		Infor	med by:	<del>_</del>		
☐ Sample(s) on hol	d until:	released	l, notify:	1 11-12		
Project Management		) IN IF A	Date:	TED BY SOMEONE OTHER THAN THE INITIATOR, THEN		

THAT PERSON IS REQUIRED TO APPLY THEIR NITIAL AND THE DATE NEXT TO THAT ITEM.

ADMIN-0004 rev13, REVISED 05/27/11 \\Sisvr01\QA\FORMS\ST-LOUIS\ADMIN\Admin-0004 CUR.doc

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CH2MHill Pla Company	_	emediation	Cu18	CHAI	N OF CUS	STODY/SA	MPLE AN	NALYSI	S REQUES	Γ	C.o.c.# W12-003-086
SL1265			10								Page 1 of 1
Collector DJ Spa				Contact/	Requester k	Karen Waters-H	ısted	Te	lephone No. 376	5-4650	
SAF No.	W12-0	03		Sampling	Origin H	Hanford Site		Pu	Purchase Order/Charge Code 300071ES20		
Project Title RCRA, MARCH 2012				Logbook	Logbook No. HNF-N-50644/52				Ice Chest No. 6ws 289		
Shipped To (Lab) TestAmerica St. Louis			Method	Method of Shipment Commercial Carrier				Bill of Lading/Air Bill No. 7934 5759 164			
Protocol RCRA Priority: 45 De			45 Days		Offsite Property No.						
releasable per DOE Ord	tive Materia	l at concentations th	at are not regulate	d for transportation per 49 C		Site Wide Ger	NSTRUCTIONS erator Knowledge Inform all analytical work at V		plies.	otal Activity E	exemption: Yes 🗹 No 🗌
Sample No. I	Filter *	Date	Time	No/Type Container		Sample A	nalysis		Holding Time		Preservative
B2K4B7	N M	41312	C320	¥ 4x40-mL aGs*	Gs* 8260_VOA_GCMS: List-3 (56)				14 Days	HCl or	H2SO4 to pH <2/Cool~4C
B2K4B7	N N	1 1	V	1x20-mL P	Activity Scan				6 Months		None



A-6004-842 (REV 2)

Print page | Close



**Detailed Results** 

Tracking no.: 793457591645 Select time format: 12H

**Delivered** 

Delivered Signed for by: B.DANIELS

Shipment Dates

Destination

EARTH CITY, MO Signature Proof of Delivery

Ship date Apr 16, 2012 Delivery date Apr 17, 2012 10:23 AM

**Shipment Options** 

Hold at FedEx Location

Hold at FedEx Location service is not available for this shipment.

Shipment Facts

Service type Weight

Priority Overnight 76.0 lbs/34.5 kg

Reference

Shipping/Receiving

GWS-289

Shipment Travel History

Select time zone: Local Scan Time

All shipment travel activity is displayed in local time for the location

Date/Time	Activity	Location	Details
Apr 17, 2012 10:23 AM	Delivered	EARTH CITY, MO	
Apr 17, 2012 7:08 AM	On FedEx vehicle for delivery	EARTH CITY, MO	
Apr 17, 2012 7:02 AM	At local FedEx facility	EARTH CITY, MO	
Apr 17, 2012 5:10 AM	At destination sort facility	BERKELEY, MO	
Apr 17, 2012 4:30 AM	Departed FedEx location	MEMPHIS, TN	
Apr 17, 2012 12:39 AM	Arrived at FedEx location	MEMPHIS, TN	
Apr 16, 2012 5:15 PM	Left FedEx origin facility	PASCO, WA	ti.
Apr 16, 2012 4:06 PM	Picked up	PASCO, WA	
Apr 16, 2012 12:18 PM	Shipment information sent to FedE	x	

APRIL	30, 2	012	2011	TestAmerica - St. Louis
Lot #(s):	FL	1)//	10 X	
1 8		_		442
Shipping I Client	Informat	<i>4.)</i> '	7./2	Multiple Packages: Y N  Sample Temperature (s):**  1. 2 6. 2. 7.
				3 8 4 9
**5	Sample mu	st be rece	ived at 4°	°C ± 2°C- If not, note contents below. Temperature
Per		NOT alle	ct the to	nowing: Metais-Liquid; Rad tests- Liquid or Solids;
		<u> </u>	V.	
	8.	Y' N		Are there custody seals present on bottles?
	9.	Y N	N/A	Do custody seals on bottles appear to be tampered with?
itter	10.	Y N	N/A	Was sample received with proper pH <sup>1</sup> ? (If not, make note below)
ustody?	11.	Y N	NVA	Containers for C-14, H-3 & I-129/131 marked with "Do Not Preserve" label?
	12.	Y N		Sample received in proper containers?
	13.	Y N	N/A	Headspace in VOA or TOX liquid samples? (If Yes, note sample ID's below)
nalysis?	14.	Y N	AV/A)	Was Internal COC/Workshare received?
received must b	-	_	Aller College	
	Shipping I  Shipping I  Client  Shipping I  Client  Are to be after  Custody?  In sample  Analysis?  Treceived must be the sample of the sampl	Date:  Shipping Informate Client Other:  The sample must variance does Perchlorate icable):  On the 8. Car to be 9. Inferr 10. Custody? 11. Informate icable	Date: 4.// Shipping Information Client Other:  **Sample must be rece variance does NOT affe Perchlorate icable): on the 8. Y N ar to be 9. Y N ar to be 9. Y N ar to be 12. Y N h sample 12. Y N  13. Y N  received must be verified, EXCEPT 37, 043, 036, 04	Date: 4.77./2  Shipping Information Client Other:  **Sample must be received at 4 variance does NOT affect the forechlorate icable): In the 8. Y N  art to be 9. Y N N/A  Custody? 11. Y N N/A  Custody? 11. Y N N/A  th sample 12. Y N  13. Y N N/A  traceived must be verified, EXCEPT VOA, 7  13. 7, 0 43, 036, 049, 049, 049, 049, 049, 049, 049, 049

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None

C.O.C. # **CH2MHill Plateau Remediation** W12-004-042 CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST Company 5L1265 Page 1 of 1 **KC Patterson** Collector . Contact/Requester Telephone No. Karen Waters-Husted 376-4650 CHPRC SAF No. W12-004 Sampling Origin Hanford Site Purchase Order/Charge Code 300071ES20 Project Title RCRA, APRIL 2012 Logbook No. HNF-N-506 47 / 51 Ice Chest No. Bill of Lading/Air Bill No. 7482 8805 3896 Shipped To (Lab) Method of Shipment TestAmerica St. Louis Commercial Carrier Offsite Property No. Protocol **RCRA** Priority: 45 Days Total Activity Exemption: Yes V No SPECIAL INSTRUCTIONS POSSIBLE SAMPLE HAZARDS/REMARKS **Hold Time** \*\* \*\* Contains Radioactive Material at concentations that are not regulated for transportation per 49 CRF but are not Site Wide Generator Knowledge Information Form applies. releasable per DOE Order 5400 5 (1990/1993) The CACN for all analytical work at WSCF is 401647. Sample No. Filter Date Time No/Type Container Sample Analysis **Holding Time** Preservative **B2KK55** W 1,3/12 3x1-L aG 8040 PHENOLIC GC: List-1 (17) 7/40 Days Na2S2O3/Cool~4C N 1051

1x20-mL P

**Activity Scan** 

Relinquished By	Print	Sign		Received By	Print	Sign	Date/Time 1325	-	Matri	x *		] _
KC Patterso	on A		APR 1 3 2012	Son			APR 1 3 2012	S	= Soil	DS	= Drum Solids	estA
Relinquished By	<del></del>	APR 1 6 2	117 Date/Time	Received By CC Patterson		APR 16	2012 ate/Time	SE SO	<ul><li>Sediment</li><li>Solid</li></ul>	DL T	<ul><li>Drum Liquids</li><li>Tissue</li></ul>	mer
SSU			0800	CHPRC	~	-	0800	SL	= Sludge	WI	= Wipe	Ca
ωRelinquished By		100 4 0 00	Date/Time	Received By	-		Date/Time	W	<ul><li>Water</li><li>Oil</li></ul>	L	<ul><li>Liquid</li><li>Vegetation</li></ul>	- St
CHRRC 6		APR 1 6 20	1500	FEDEX	_			A	= Air	x	= Other	] [
Relinquished By			Date/Time	Received By	711		Date/Time					S
FEDEX				SWISM	assive	4.17.12	1020					
FINAL SAMPLE DISPOSITION	Disposal Method (e.g.	, Return to customer, per la	b procedure, used in proc	eess)	Disposed	d By			Date/	Time		

6 Months

**B2KK55** 

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CH2MHill Pla Company		Remediation		СНА	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST						
5L1265	2							Page 1 of 1			
Collector		parks		Conta	act/Requester Kare	en Waters-Husted	Telephone No. 376-4650				
G ≰SAF No.		2-004		Sampl	ing Origin Han	ford Site	Purchase Order/Charge Code	300071ES20			
Rroject Title	RC	RA, APRIL 2012		Logb	Logbook No. HNF-N-506 45 / 76 Ice Chest No. 6 w 5 - 19						
Shipped To (Lab)	Tes	tAmerica St. Lou	is	Meth	od of Shipment Cor	nmercial Carrier	Bill of Lading/Air Bill No. 793	2 8805 3896			
Protocol	RC	RA		Prior	ity: 45 Days		Offsite Property No.				
							ty Exemption: Yes 🗹 No 🗌				
Sample No.	Filter	* Date	Time	No/Type Contain	er	Sample Analysis Holding Time					
B2KK67	N	W 4-12-12	0929	3x1-L aG	8040_PHENOLIC	GC: List-1 (17)	7/40 Days	Na2S2O3/Cool~4C			
B2KK67	N	w V	1	1x20-mL P	Activity Scan	None					

Relinquished By	Print Sign	Date/Time /400	Received By	Print Sig	n Date/Time /400	<b>,</b>	Matri	ix *	
DJ Spari CHPRO		APR 1 2 2012	SS4-1		APR 1 2 2012	s	= Soil	DS	= Drum Solids
Relinquished By	119	A DD 4 0 204 Date/Time	Received By	19	Date/Time	SE	= Sediment	DL	= Drum Liquids
SSU-1	0	APR 1 6 2012 0800	CHPRC		APR 1 6 2012 (5500)	SO SL	= Sludge	WI	<ul><li>Tissue</li><li>Wipe</li></ul>
Relinquished By	2)	Date/Time	Received By		Date/Time	] W	= Water	L	= Liquid
OKC Patterson	AP	R 1 6 2012 1500	FEDEX			A	= Oil = Air	X	<ul><li>Vegetation</li><li>Other</li></ul>
Relinquished By		Date/Time	Received By	01.00	Date/Time		-		
FED EX			SWILSON	MIS 8 600	4.17.12 102	20			
FINAL SAMPLE	Disposal Method (e.g., Return to cu	stomer, per lab procedure, used in proce	ss)	Disposed E	By		Date	/Time	
DISPOSITION									

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None

CH2MHill Pla Company	ateau Rer	nediation		CHAI	N OF CU	C.O.C.# W12-004-037		
5L1269	5							Page 1 of 1
Collector AL MC	O / SAYTAK	HPRC		Contact/	Requester	Karen Waters-Husted	Telephone No. 376-4650	)
GAF No.	W12-00	4	Sampling Origin Hanford Site Purchase Order/Charge Code					
Project Title	RCRA,	APRIL 2012		Logbook	No. HNF-	N-506 47 150	Ice Chest No. 6WS	5-192
Shipped To (Lab)	TestAm	erica St. Lou	is	Method	of Shipment	Commercial Carrier		1982 3805 3896
Protocol	RCRA			Priority:	45 Days		Offsite Property No.	nla
POSSIBLE SAMP  ** ** Contains Radioa releasable per DOE On	ctive Material a	t concentations th		1 for transportation per 49 (	CRF but are not	SPECIAL INSTRUCTIONS Site Wide Generator Knowledge Informati The CACN for all analytical work at WSC	on Form applies.	tivity Exemption: Yes 🗸 No 🗌
Sample No.	Filter *	Date	Time	No/Type Container		Sample Analysis	Holding Time	Preservative
B2KK17	N W	4/12/12	0951	3x1-L aG	8040_PHENC	DLIC_GC: List-1 (17)	7/40 Days	Na2S2O3/Cool~4C

1x20-mL P

Activity Scan

Relinquished By	Print // /Sigg	Date/Time/520	Received By	Print S	Sign	Date/Time 1524	Þ	Matri	x *	
AL MCINTYRE / CHPRC	JUST	APR 1 2 2012	550 Hd/			APR 1 2 2012	S	= Soil	DS	= Drum Solids
Relinquished By			Received By		100 4 6 6646	Date/Time	SE	= Sediment	DL	= Drum Liquids
350 #1	/ _ /	APR 1 6 2012 OFCE	CHPRC		APR 1 6 2012	0500	SO SL	<ul><li>Solid</li><li>Sludge</li></ul>	WI	= Tissue = Wipe
Relinquished By		APR 1 6 2012 ate/Time	Received By			Date/Time	W	= Water	L	= Liquid
9 CAPRO		1500	FEDEX				0	= Oil	V	= Vegetation
							Α	= Air		= Other
Relinquished By		Date/Time	Received By	0 6/1		Date/Time				
FED EX			JWI/SOD	Sed 19	4.17.1	2 1020				
FINAL SAMPLE Dis	sposal Method (e.g., Return to	customer, per lab procedure, used in proce	ess)	Disposed	і Ву			Date	Time	
DISTOSTITON										

6 Months

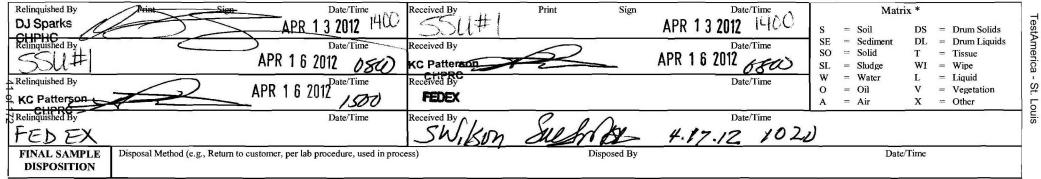
B2KK17

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CH2MHill Pl Company	ateau	Rer	nediation		СНАІ	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST							
5L126	5								Page 1 of 1				
Collector	FM Ha				Contact/	Requester Ka							
SAF No.	CONTRACTOR CONTRACTOR	2-00	4		Sampling	Origin Ha	nford Site	Purchase Order/Charge Code	300071ES20				
Project Title	RC	RA,	APRIL 201	2	Logbook	No. HNF-N-	506 <u>45/77</u>	Ice Chest No. ( ) W \( \)	Ice Chest No. (3W3 238				
Shipped To (Lab) TestAmerica St. Louis					Method	of Shipment Co	ommercial Carrier	Bill of Lading/Air Bill No. 7	182 8809 3845				
Protocol	RC	RA			Priority:	45 Days		Offsite Property No.					
POSSIBLE SAMP  ** ** Contains Radio releasable per DOE O	active Ma	terial a	t concentations		d for transportation per 49 (	CRF but are not	SPECIAL INSTRUCTIONS Site Wide Generator Knowledge Informat The CACN for all analytical work at WSO	tion Form applies.	vity Exemption: Yes 🗹 No 🗌				
Sample No.	Filter	*	Date	Time	No/Type Container		Sample Analysis	Holding Time	Preservative				
B2KK12	N	W	4/13/12	0813	3x1-L aG	8040_PHENOLIC	C_GC: List-1 (17)	7/40 Days	Na2S2O3/Cool~4C				
B2KK12	N	W	1,5	1	1x20-mL P	Activity Scan		6 Months	None				

Relinquished By	Print Sign	Date/Time	Received By	Print	Sign	Date/Time		Matrix *		
FM Hall	FERRAL	APR 1 3 2012 1500	S54#1		AP	R 1 3 2012 1500	S =			Diam bonds
Relinquished By		Date/Time	Received By		,	Date/Time	SE =			Drum Liquids Tissue
55U#1		APR 1 6 2012 0800	KC Patterson		APF	R 1 6 2012 / 0000	SL =	Sludge V	/I =	Wipe
Relinquished By  KC Patterson	100	APR 1 6 2012 APR	RECEIRC			Date/Time	W =	Water I		Liquid Vegetation
L UNICO		1500					100	Air 2		Other
Relinquished By		Date/Time	Received By	0	1-11-	Date/Time				
FED EX			SWISM	Sull	Me	4-17-12 102	0_			
FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to c	ustomer, per lab procedure, used in proce	ess)	Б	isposed By			Date/Tir	ne	

CH2MHill Pla Company	iteau ]	Remediation		СНАІ	N OF CUS	W12-004-049					
5L1262	Sporks			_				Page 1 of 1			
	PRC			Contact	Requester K	aren Waters-Husted	Telephone No. 376-4650				
SAF No.	W12	-004		Sampling	Origin H	anford Site	Purchase Order/Charge Code	300071ES20			
Project Title	RCR	A, APRIL 2012	2	Logbook	No. HNF-N	1-506 44 153	Ice Chest No. さいろ	Ice Chest No. 6 w 3 238			
Shipped To (Lab)	Test	America St. Lo	uis	Method	of Shipment (	Commercial Carrier	Bill of Lading/Air Bill No. 75	87 8809 3845			
Protocol	RCR	A		Priority	45 Days		Offsite Property No.				
** ** Contains Radioa releasable per DOE On	ctive Mate	erial at concentations the		for transportation per 49 (	CRF but are not	SPECIAL INSTRUCTIONS Site Wide Generator Knowledge Informat The CACN for all analytical work at WSC	ion Form applies.	vity Exemption: Yes 🗹 No 🗌			
Sample No.	Filter	* Date	Time	No/Type Container		Sample Analysis	Holding Time	Preservative			
B2KKH1	N	W 4.13:12	0942	3x1-L aG	8040_PHENOL	IC_GC: List-1 (17)	7/40 Days	Na2S2O3/Cool~4C			
B2KKH1	N .	W	1,	1x20-mL P	Activity Scan	· · · · · · · · · · · · · · · · · · ·	6 Months	None			



None

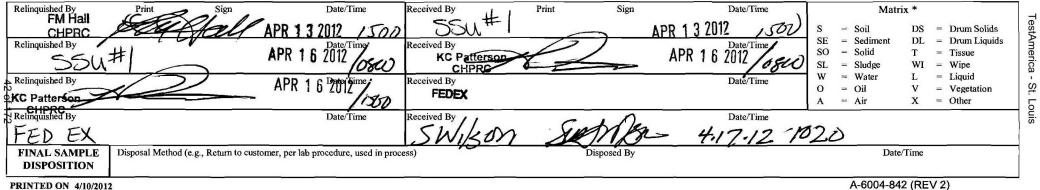
CH2MHill Plateau Remediation Company					CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST					C.o.c. # W12-004-045		
5L1265	FM H	lall								Page 1 of 1		
Collector	CHP				Contac	t/Requester	Kare	n Waters-Husted	Telephone No. 376-4650			
SAF No.	W12	-004	4	-	Samplin	Sampling Origin Hanford Site			Purchase Order/Charge Code	Purchase Order/Charge Code 300071ES20		
Project Title	RCRA, APRIL 2012					Logbook No. HNF-N-506 45/77			Ice Chest No. 605 2	1300 - 00		
Shipped To (Lab)	Test	Ame	erica St. Lou	is	Metho	Method of Shipment Commercial Carrier			Bill of Lading/Air Bill No.	82 8809 384		
Protocol	RCR	A			Priorit	Priority: 45 Days						
** ** Contains Radioar releasable per DOE Or	ctive Mate	erial a	t concentations th		I for transportation per 49	CRF but are not		SPECIAL INSTRUCTIONS Site Wide Generator Knowledge Inform The CACN for all analytical work at Wi	nation Form applies.	rity Exemption: Yes 🗹 No 🗌		
Sample No.	Filter	*	Date	Time	No/Type Container	r		Sample Analysis	Holding Time	Preservative		
B2KK82	N W L/13/17 12/09 3x1-L aG 8040_PHENOLIC				ENOLIC_	GC: List-1 (17)	7/40 Days	Na2S2O3/Cool~4C				

1x20-mL P

**Activity Scan** 

**B2KK82** 

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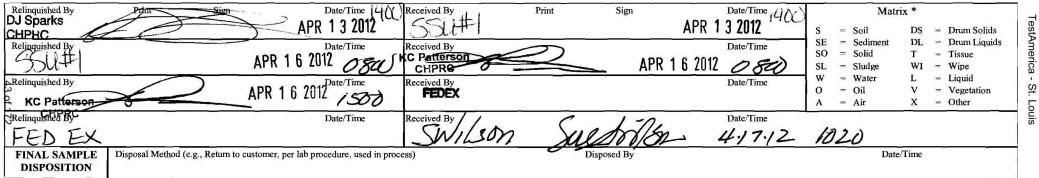


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CH2MHill Plateau Remediation Company			CF	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST							
5L1265									Page 1 of 1		
Collector DJ Sparks					ontact/Requester	Kare	en Waters-Husted	Telephone No. 376-465	50		
SAF No.		2-004		Sar	mpling Origin	Hani	ford Site	Purchase Order/Charge Cod	e 300071ES20		
Project Title	RCI	RA, APRIL 2012		Lo	Logbook No. HNF-N-50644/52 Ice C			Ice Chest No. 6W5	Ice Chest No. 6WS 238		
Shipped To (Lab)	Tes	tAmerica St. Lou	is	М	lethod of Shipment	Con	nmercial Carrier	Bill of Lading/Air Bill No.	7182 8809 3845		
Protocol	RCI	RA		Pr	riority: 45 Days				Offsite Property No.		
POSSIBLE SAMPLE HAZARDS/REMARKS  ** ** Contains Radioactive Material at concentations that are not regulated for transportation preleasable per DOE Order 5400 5 (1990/1993)					per 49 CRF but are not		SPECIAL INSTRUCTIONS Site Wide Generator Knowledge Inform The CACN for all analytical work at WS	ation Form applies.	ctivity Exemption: Yes 🗹 No 🗌		
Sample No.	Filter	* Date	Time	No/Type Con	ntainer	Sample Analysis		Holding Time	Preservative		
B2KKH0	N	W 4.13.12	0942	3x1-L a	G 8040_PHE	NOLIC	GC: List-1 (17)	7/40 Days	Na2S2O3/Cool~4C		
B2KKH0	N	W	V	1x20-mL	P Activity Sca	an		6 Months	None		



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CH2MHill Plateau Remediation Company SL1265					СНА	IN OF CUS	TODY/SAMPLE ANA	LYSIS REQUEST	C.O.C. # W12-004-043	
									Page 1 of 1	
Collector KC Patterson CHPRC					Contac	t/Requester Ka	aren Waters-Husted	Telephone No. 376-4650		
SAF No.		2-00	4		Samplin	g Origin Ha	anford Site	Purchase Order/Charge Code	300071ES20	
Project Title	RC	RCRA, APRIL 2012 Logbook No. HNF-N-5					-506 47/51	Ice Chest No. 645	289	
Shipped To (Lab)	Tes	tAm	erica St. Lou	is	Method	of Shipment C	ommercial Carrier	Bill of Lading/Air Bill No.	934 5759 16AS	
Protocol	RC	RA			Priority	: 45 Days		Offsite Property No.		
POSSIBLE SAMP  ** ** Contains Radioa releasable per DOE O	ctive Ma	terial a	at concentations th		l for transportation per 49	CRF but are not	SPECIAL INSTRUCTIONS Site Wide Generator Knowledge Informati The CACN for all analytical work at WSC	on Form applies.	vivity Exemption: Yes 🗹 No 🗌	
Sample No.	Filter	*	Date	Time	No/Type Container		Sample Analysis	Holding Time	Preservative	
B2KK60	N	W	4/13/12	0912	3x1-L aG	8040_PHENOLI	C_GC: List-1 (17)	7/40 Days	Na2S2O3/Cool~4C	
B2KK60	N	W	1	V	1x20-mL P	Activity Scan		6 Months	None	

Relinquished By	Print	Sign	Date/Time 1325		Print	Sign	Date/Time 1325	_	Matr	ix *	
CHPRC CHPRC	1==		APR 1 3 2012	SSW			APR 1 3 2012 3	S	= Soil	DS	= Drum Solids
Relinquished By			Date/Time	Received By			Date/Time	SE	<ul><li>Sediment</li><li>Solid</li></ul>	DL	<ul><li>Drum Liquids</li><li>Tissue</li></ul>
SSU			APR 1 6 2012 0800	KC Patterson			APR 1 6 2012	SL	= Sludge	WI	= Wipe
Relinquished By		7	Date/Time	Received By			Date/Time	W	= Water = Oil	L	= Liquid
KC Patterson		$\leq$	APR 1 6 2012 300	FEDEX				A	= Air	X	<ul><li>Vegetation</li><li>Other</li></ul>
Relinquished By			Date/Time	Received By	- N	2)1	Date/Time				
FED EX				5 WILSON	n sulth	19	4.17.12 102	20			
FINAL SAMPLE Dis	sposal Method (e.g.	, Return to cu	stomer, per lab procedure, used in proce			sposed By			Date	/Time	
·											

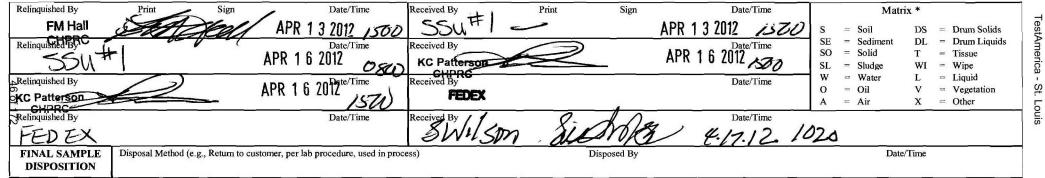
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CH2MHill Plateau Remediation Company				СН	C.O.C.# W12-004-034					
5L1265									Page 1 of 1	
© ollector AL MCINTYRE / CHPRC					Con	tact/Requester Ka	ren Waters-Husted	Telephone No. 376-4650		
SAF No.	W12	2-00	4		Samp	oling Origin Ha	nford Site	Purchase Order/Charge Code	300071ES20	
Project Title	RCRA, APRIL 2012					book No. HNF-N-	506 471 50	Ice Chest No. Gw.5 2	Ice Chest No. GWS 289	
Shipped To (Lab)	TestAmerica St. Louis					hod of Shipment Co	ommercial Carrier	Bill of Lading/Air Bill No.7934	5759 1645	
Protocol	RCF	RA			Prio	rity: 45 Days	Offsite Property No.			
POSSIBLE SAMPLE HAZARDS/REMARKS  ** ** Contains Radioactive Material at concentations that are not regulated for transporteleasable per DOE Order 5400 5 (1990/1993)				it are not regulated	for transportation per	r 49 CRF but are not	SPECIAL INSTRUCTIONS Site Wide Generator Knowledge Info The CACN for all analytical work at	ormation Form applies.	Exemption: Yes 🗸 No 🗌	
Sample No.	Filter	*	Date	Time	No/Type Contai	iner	Sample Analysis	Holding Time	Preservative	
B2KK02	N	W	4/12/12	1417	3x1-L aG	8040_PHENOLI	C_GC: List-1 (17)	7/40 Days	Na2S2O3/Cool~4C	
B2KK02	N	W 1x20-mL P Activity Scan			Activity Scan	<u></u>	6 Months	None		

Relinquished By Print Sign	Date/Time /5 20		Print Sign	Date/Time / \$ 20	Mat	rix *	
AL MCINTYRE / CHPRC	APR 1 2 2012	55 UM/		APR 1 2 2012	S = Soil	DS = Drum Solids	
Relinquished By	Date/Time	Received By		Date/Time	SE = Sediment	DL = Drum Liquids	
CCUEI/	APR 1 6 2012	KC Ratterson	<del></del>	ADD 4 C 2042	SO = Solid	T = Tissue	
5502///	APR 1 6 ZÜTZ	CHPRC		APR 10 LUIL USCO	SL = Sludge	WI = Wipe	
rRelinquished By		Received By		Date/Time	W = Water	L = Liquid	-
KC Patterson	APR 1 6 20Pize/Time	FEDEX		240/11110	O = Oil	V = Vegetation	
CHPRC 20	150				A = Air	X = Other	
Relinquished By	Date/Time	Received By	50/1/1	Date/Time			1
FED EX		SINIZIST	XIVITY 18	4.17.12	1020		
ICVCA		20012011	00001110	71/140			
FINAL SAMPLE Disposal Method (e.g., Return to cus	tomer, per lab procedure, used in proce	ess)	Disposed By		Date	e/Time	
DISPOSITION							

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CH2MHill Plateau Remediation Company				CHAI	N OF CU	STODY/SAMPLE ANA	ALYSIS REQUEST	C.o.c. # W12-004-040		
541265	M Hall							Page 1 of 1		
	CHPRC			Contact	Requester J	Karen Waters-Husted	Telephone No. 376-4650	)		
SAF No.	W12-	-004		Sampling	Origin J	Hanford Site	Purchase Order/Charge Code	300071ES20		
Project Title	Project Title RCRA, APRIL 2012					Logbook No. HNF-N-506 45 177 Ice Chest No. Gws				
Shipped To (Lab)	pped To (Lab) TestAmerica St. Louis					Commercial Carrier	A STATE SERVER S	A. A. C.		
Protocol	RCR	A		Priority	45 Days		Offsite Property No.	Offsite Property No.		
POSSIBLE SAMPI  ** ** Contains Radioac releasable per DOE Or	ctive Mate	rial at concentations th		for transportation per 49	CRF but are not	SPECIAL INSTRUCTIONS Site Wide Generator Knowledge Informat The CACN for all analytical work at WSC	tion Form applies.	tivity Exemption: Yes 🗹 No 🗌		
Sample No.	Filter	* Date	Time	No/Type Container		Sample Analysis	Holding Time	Preservative		
B2KK34	N	W 4/13/12	0856	3x1-L aG	8040_PHENO	LIC_GC: List-1 (17)	7/40 Days	Na2S2O3/Cool~4C		
B2KK34	N	W	1/	1x20-mL P	Activity Scan		6 Months	None		



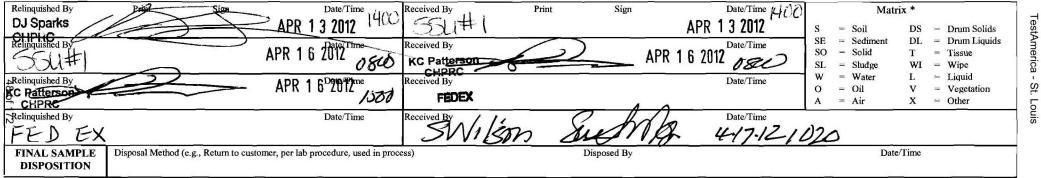
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CH2MHill Plateau Remediation Company					C	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST							c.o.c.# W12-004-041	
5L1265		77 \				N 72 W2								Page 1 of 1
Collector	Collector CHPRC					(	Contact/Rec	quester k	Care	n Waters-Husted		Telephone No. 376-4	650	
SAF No.						Sa	Sampling Origin Hanford Site Purchase Order/Charge Code				ode (	300071ES20		
Project Title	Project Title RCRA, APRIL 2012					1	Logbook No. HNF-N-506 45/77 Ice Chest No. 12 05				288	>		
Shipped To (Lab)	Tes	tAm	erica	St. Lo	uis	Method of Shipment Cor				mercial Carrier		Bill of Lading/Air Bill No. 7534 5759		
Protocol	RCI	RA				I	Priority:	45 Days				Offsite Property No.	NIA	
** ** Contains Radioact releasable per DOE Ord	ive Mat	terial a	at concer	ntations th		1 for transportatio	n per 49 CRF	but are not		SPECIAL INSTRUCTIONS Site Wide Generator Knowledge Inform The CACN for all analytical work at WS		applies.	Activity Ex	temption: Yes 🗹 No 🗌
Sample No. F	ilter	*	D	ate	Time	No/Type Co	ntainer			Sample Analysis	-	Holding Time		Preservative
B2KK39	N	W	4/13	3/12	0946	3x1-L	aG 8	040_PHENO	LIC_	GC: List-1 (17)		7/40 Days	N	la2S2O3/Cool~4C
B2KK39	N	W	J		V	1x20-m	O-mL P Activity Scan				6 Months		None	

Relinquished By	Print Sign	Date/Time	Received By	Print	Sign	Date/Time	Matri	x *
FM Hall CHPRC	A MARCH AF	PR 1 3 2012 1500	55u#1		AP	R 1 3 2012/500	S = Soil	DS = Drum Solids
Relinquished By			Received By			Date/Time	SE = Sediment	DL = Drum Liquids
SSU#	API	R 1 6 2012 0800	KC Patterson		API	R 1 6 2012 1800	SO = Solid SL = Sludge	T = Tissue WI = Wipe
⊾Relinquished By	AL AL	PR 1 6 2012 1500	Received By			Date/Time	W = Water	L = Liquid
KC Patterson,		N 10 2012 /500	FEDEX				O = Oil	V = Vegetation
CHERC							A = Air	X = Other
Relinquished By		Date/Time	Received By	1	210	Date/Time	_	
FED EX			SWISON	Sell	1184	4.1712 1	<u> か</u>	
FINAL SAMPLE	Disposal Method (e.g., Return to customer,	per lab procedure, used in proce	ess)	Dispos	sed By		Date/	Time
DISPOSITION								

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CH2MHill Plateau Remediation Company						CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST						7	W12-004-172	
SL1265	5												Page 1 of 1	
OCollector CHPHC						Contact/Requester Karen Waters-Husted				7	Telephone No. 376-	-4650		
GAF No.	F No. W12-004 Sampling Origin Ha					Hanf	ford Site Purchase Order/Charge Code 3000				300071ES20			
Project Title	RCI	RA,	APRIL 2012	1012 Logbook No. HNF-N-5					0644 152	Ice Chest No. Gws 289			9	
Shipped To (Lab)	Tes	tAm	erica St. Lo	uis		Method o	of Shipment	Con	nmercial Carrier	1	Bill of Lading/Air Bill No	4 5759 164		
Protocol	RCI	RA				Priority:	45 Days			(	Offsite Property No.			
POSSIBLE SAMP  ** ** Contains Radioa releasable per DOE Or	ctive Ma	terial a	nt concentations th		ed for transportat	ion per 49 C	CRF but are not		SPECIAL INSTRUCTIONS Site Wide Generator Knowledge Informat The CACN for all analytical work at WS6		applies.	tal Activity E	xemption: Yes 🗹 No 🗆	
Sample No.	Filter	*	Date	Time	No/Type C	Container		_	Sample Analysis		Holding Time		Preservative	
B2L247	N	W	4.13.12	0330	1x20-	mL P	Activity Scan				6 Months		None	
B2L247	N	W	1	1/	4x40-m	L aGs*	8260_VOA_GCMS: List-2 (26)				14 Days	HCl or h	H2SO4 to pH <2/Cool~4C	



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A-6004-842 (REV 2)

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**Detailed Results** 

Tracking no.: 798288053896 Select time format: 12H

**Delivered**Signed for by: B.DANIELS

Shipment Dates Destination

Ship date Apr 16, 2012 EARTH CITY, MO
Delivery date Apr 17, 2012 10:23 AM Signature Proof of Delivery

**Shipment Options** 

Hold at FedEx Location

Hold at FedEx Location service is not available for this shipment.

Shipment Facts

Service type Priority Overnight Delivered to Shipping/Receiving Weight 67.0 lbs/30.4 kg Reference GWS-192

Shipment Travel History

Select time zone: Local Scan Time

Date/Time	Activity	Location	Details	
Apr 17, 2012 10:23 AM	Delivered	EARTH CITY, MO		
Apr 17, 2012 7:06 AM	On FedEx vehicle for delivery	EARTH CITY, MO		
Apr 17, 2012 7:01 AM	At local FedEx facility	EARTH CITY, MO		*
Apr 17, 2012 5:10 AM	At destination sort facility	BERKELEY, MO		
Apr 17, 2012 4:30 AM	Departed FedEx location	MEMPHIS, TN	-	
Apr 17, 2012 12:39 AM	Arrived at FedEx location	MEMPHIS, TN		
Apr 16, 2012 5:15 PM	Left FedEx origin facility	PASCO, WA		
Apr 16, 2012 4:06 PM	Picked up	PASCO, WA	· ·	
Apr 16, 2012 12:11 PM	Shipment information sent to Fed	Ex		

Print page | Close



**Detailed Results** 

Tracking no.: 798288093845 Select time format: 12H

**Delivered**Signed for by: B.DANIELS

Shipment Dates Destination

Ship date Apr 16, 2012 EARTH CITY, MO
Delivery date Apr 17, 2012 10:23 AM Signature Proof of Delivery

**Shipment Options** 

Hold at FedEx Location

Hold at FedEx Location service is not available for this shipment.

Shipment Facts

Service type Priority Overnight
Weight 70.0 lbs/31.8 kg

Delivered to Reference Shipping/Receiving

GWS-238

Shipment Travel History

Select time zone: Local Scan Time

Date/Time	Activity	Location	Details	
Apr 17, 2012 10:23 AM	Delivered	EARTH CITY, MO	3.	
Apr 17, 2012 7:11 AM	On FedEx vehicle for delivery	EARTH CITY, MO		
Apr 17, 2012 7:05 AM	At local FedEx facility	EARTH CITY, MO		
Apr 17, 2012 5:10 AM	At destination sort facility	BERKELEY, MO		
Apr 17, 2012 4:30 AM	Departed FedEx location	MEMPHIS, TN		
Apr 17, 2012 12:39 AM	Arrived at FedEx location	MEMPHIS, TN	*	
Apr 16, 2012 5:15 PM	Left FedEx origin facility	PASCO, WA		
Apr 16, 2012 4:06 PM	Picked up	PASCO, WA		
Apr 16, 2012 12;17 PM	Shipment information sent to Fed	Ex		

Print page | Close



## **Detailed Results**

Tracking no.: 793457591645 Select time format: 12H

Delivered	Delivered					
Delivered	Signed for by: B.DANIELS					

Shipment Dates Destination

Ship date Apr 16, 2012 EARTH CITY, MO
Delivery date Apr 17, 2012 10:23 AM Signature Proof of Delivery

## **Shipment Options**

Hold at FedEx Location

Hold at FedEx Location service is not available for this shipment.

## Shipment Facts

Service type	Priority Overnight	Delivered to	Shipping/Receiving	
Weight	76.0 lbs/34.5 kg	Reference	GWS-289	
,		1.451.01 -11.45		*

## Shipment Travel History

Select time zone: Local Scan Time

Date/Time	Activity	Location	Details	
Apr 17, 2012 10:23 AM	Delivered	EARTH CITY, MO		
Apr 17, 2012 7:08 AM	On FedEx vehicle for delivery	EARTH CITY, MO		
Apr 17, 2012 7:02 AM	At local FedEx facility	EARTH CITY, MO	-	
Apr 17, 2012 5:10 AM	At destination sort facility	BERKELEY, MO		
Apr 17, 2012 4:30 AM	Departed FedEx location	MEMPHIS, TN		-
Apr 17, 2012 12:39 AM	Arrived at FedEx location	MEMPHIS, TN		
Apr 16, 2012 5:15 PM	Left FedEx origin facility	PASCO, WA		
Apr 16, 2012 4:06 PM	Picked up	PASCO, WA		
Apr 16, 2012 12:18 PM	Shipment information sent to Fed	Ex		

	APRIL 3	30, 20	12	20	TestAmeric	a - St. Louis	
TestAmerica	Lot #(s):	FX	11704	37			
THE LEADER IN ENVIRONMENTAL TESTING CUR Form #: 0	1 8	-		442			
2.	Shipping Der Client	Date: Informa Other:	St be received at 4	Multiple Temp  1. 2 2. 3 4. 5 CC ± 2°C- If not	Time:	/ð.20 ges: Y. **  5  7  8  9 below. Temp	) N
*Numbered shipping lines correspond to Numbered Sample Temp	lines var Per	riance does rchlorate	NOT affect the fo	llowing: Metals	s-Liquid; Rad t	ests- Liquid o	r Solids;
Condition (Circle "Y" for yes, "N" for no and "N/A" for not ap							
1. Are there custody seals present cooler?		8.	У N		ustody seals		
2. Y N/A Do custody seals on cooler app tampered with?	ear to be	9.	Y N N/A	Do custody tampered w		ttles appear	r to be
Were contents of cooler frisked opening, but before unpacking?		10.	Y N NA	not, make not			
4. (Y) N Sample received with Chain of	Custody?	11.	Y N N/A	Containers marked wit			
5. N N/A Does the Chain of Custody mat ID's on the container(s)?	ch sample	12. (	Y N	Sample rec	eived in pro	per contain	ers?
6. Y N Was sample received broken?		13.	Y N/A	Headspace (If Yes, note	in VOA or 's be		samples?
7. YN Is sample volume sufficient for		14.	Y N N/A	Was Interna	al COC/Wo	rkshare rec	eived?
1 For DOE-AL (Pantex, LANL, Sandia) sites, pH of ALL container  Notes: (W12-004-042, 044, 0  1/2-016-038  W12-003-086	s received must b	se verified.	EXCEPT VOA. T 36, 049, 04	0X, 0il & Gree 45, 948	se and soils, 7, 034,	040,0	41,17
Corrective Action:  Client Contact Name: Sample(s) processed "as is" Sample(s) on hold until: Project Management Review: THIS FORM MUST BE COMPLETED AT THE THE THE THE SARE I		Inform eleased,		-20-12	2		

THAT PERSON IS REQUIRED TO APPLY THEIR INITIAL AND THE DATE NEXT TO THAT ITEM.

ADMIN-0004 rev13, REVISED 05/27/11 \\SIsvr01\QA\FORMS\ST-LOUIS\ADMIN\Admin-0004 CUR.doc

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CH2MHill Pla Company	nediation		СНАІ	N OF C	C.o.c.# W12-004-140							
Company () (	J( '	_	)			4574				Page 1 of 1		
Collector	L.D. wan					Requester	Kare	n Waters-Husted	Telephone No. 376-4650			
SAF No.	W12-004					Origin	Hanf	ord Site	Purchase Order/Charge Code	300071ES20		
Project Title	oject Title RCRA, APRIL 2012					No. HN	F-N-50	06 45 180	Ice Chest No. 6WS	Ice Chest No. 6WS 155		
Shipped To (Lab)	Lab) TestAmerica St. Louis Method of					of Shipment	Con	nmercial Carrier	Bill of Lading/Air Bill No. 79			
Protocol	RCF	RA		***************************************	Priority	45 Days		- N - N - N - N - N - N - N - N - N - N	Offsite Property No. N/A			
POSSIBLE SAMPI ** ** Contains Radioa releasable per DOE Or	ctive Mat	erial a	at concentations tha		for transportation per 49 (	CRF but are not		SPECIAL INSTRUCTIONS Site Wide Generator Knowledge Informati The CACN for all analytical work at WSC	on Form applies.	ity Exemption: Yes 🗹 No 🗌		
Sample No.	Filter	*	Date	Time	No/Type Container			Sample Analysis	Holding Time	Preservative		
B2KL30	N	W	APR 1 6 2012	0940	3x1-L aG	8270_SVO	A_GCN	S: 1,4 Dioxane (1)	7/40 Days	Cool~4C		
B2KL30	N	W	1	1	1x20-mL P	Activity Sca	ın		6 Months	None		

	APR 1 6 2012 400		KiK	5	
Relinquished By Wall CHPRC CHPRC Sign	Date/Time Received By 53 mm/	Print Sign	APR 1 6 2012	Matrix * S = Soil E	OS = Drum Solids
Relinquished By 41–17	-12 Date/Time Received By 10 30 REllingswor	41 Z19-4-	17-12 Date/Time 10 30	SO = Solid T SL = Sludge V	DL = Drum Liquids T = Tissue WI = Wipe
Relinquished By	Date/Time Received By  1-17-12 1400 Feel E)		Date/Time	W = Water L O = Oil V A = Air $X$	<ul> <li>= Liquid</li> <li>V = Vegetation</li> <li>X = Other</li> </ul>
Relinquished By  FED EX	Date/Time Received BUAS	Du 4/18/	Date/Time 12 1020		
FINAL SAMPLE Disposal Method (e.g., Return to customer, per DISPOSITION		Disposed By		Date/Tin	ne

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CH2MHill Pla Company	ateau	Rem	ediation		СНА	AIN OF CU	C.O.C.# W12-004-142						
SL1265	ĺ			2000						Page 1 of 1			
Collector	L.D. W				Cont	act/Requester ]	Kare	n Waters-Husted	Telephone No. 376-4650				
SAF No.	W1	2-004			Samp	ling Origin ]	Hanf	ord Site	Purchase Order/Charge Code	300071ES20			
Project Title RCRA, APRIL 2012						ook No. HNF-	N-50	06 45/80	Ice Chest No. といいら	155			
Shipped To (Lab) TestAmerica St. Louis						od of Shipment	Con	nmercial Carrier	Bill of Lading/Air Bill No. 79				
Protocol	RC	RA			Prior	ity: 45 Days			Offsite Property No. 14				
POSSIBLE SAMP  ** ** Contains Radioa releasable per DOE O	ctive Ma	terial at	concentations t		d for transportation per	49 CRF but are not		SPECIAL INSTRUCTIONS Site Wide Generator Knowledge Informati The CACN for all analytical work at WSC	ол Form applies.	ity Exemption: Yes 🗹 No 🗌			
Sample No.	Filter	*	Date	Time	No/Type Contain	ner		Sample Analysis	Holding Time	Preservative			
B2KL50	N	WA	PR 16 20	12/043	3x1-L aG	8270_SVOA_	GCM	S: 1,4 Dioxane (1)	7/40 Days	Cool~4C			
				1x20-mL P	Activity Scan			6 Months	None				

Reiniquished by	Pan / Pan	Date/Time / Coo		Print	Sign	Date/11m	ie	M	atrix *	
L.D. Wall CHPRC	X.0. Wall	APR 1 6 2012	BBut	4/		APR 16	2012	S = Soil		rum Solids
Relinquished By		Walter Date/Time	Received By		1 way 4-		ie	SE = Sediment SO = Solid	DL = D $T = T$	rum Liquids issue
		10 30		gswort L K	J-soll		30	SL = Sludge W = Water	WI = W $L = L$	•
Relinquished By	.Tl & Game	74-17-12 Date/Time 1400	Received By	EX	<b>,</b>	Date/Tim	ne	O = Oil A = Air		egetation
Relinquished By		Date/Time	AIC HOLAS	Mulle	7 4/1	B/12 Date/Tim				
FEDEX	<u>-</u>		DWFN3	Cen	<u> </u>	112 10	20			
FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to	o customer, per lab procedure, used in proce	ess)	1	Disposed By			D	ate/Time	
DISPOSITION										

CH2MHill Pla Company							CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST						
5L1265									Page 1 of 1				
Collector L.D.	70			Contac	t/Requester	Karen Waters-Husted	Telephone No. 376-4650						
CHPRC W12-004					Samplin	g Origin	Purchase Order/Charge Code	300071ES20					
Project Title RCRA, APRIL 2012					Logbo	k No. H	NF-N-506 45 / 80	Ice Chest No. 6 25	155				
Shipped To (Lab) TestAmerica St. Louis					Metho	l of Shipment	Commercial Carrier	Bill of Lading/Air Bill No. 790					
Protocol	RCI	RA			Priorit	y: 45 Day	S	Offsite Property No. 10/A					
POSSIBLE SAMPL ** ** Contains Radioac releasable per DOE Oro	tive Ma	terial at	concentations th		d for transportation per 49	CRF but are not	SPECIAL INSTRUCTIONS Site Wide Generator Knowledge Infor The CACN for all analytical work at W	mation Form applies.	ity Exemption: Yes 🗹 No 🗌				
Sample No.	Filter	*	Date	Time	No/Type Containe	-	Sample Analysis	Holding Time	Preservative				
B2KL70	N	WAF	PR 16 201	2 1135	3x1-L aG	8270_SV0	DA_GCMS: 1,4 Dioxane (1)	7/40 Days	Cool~4C				
			1x20-mL P	Activity So	can	6 Months	None						

Relinquished By	Prym   A Signy	Date/Time / 1	Received By	Print	Sign	Date/Time/		Matrix *	30
L.D. Wall CHPRC_ /	X.N. Wall	APR 1 6 2012	SSUF		_	APR 1 6 2012	S = Soil		= Drum Solids
Relinquished By 55 UA	1 4-17-	/Z Date/Time /0.30	Received By REILINGS	1 6/		111/12 Date/Time 10.30	SO = Soli SL = Sluc	ige WI	= Drum Liquids = Tissue = Wipe
Relinquished By		7-12ate/Time 1400	received By	' >	7	Date/Time	W = Wa O = Oil A = Air	V	= Liquid = Vegetation = Other
Relinquished By FED EX	7_	Date/Time	Received By AS NICHOLAS OWENS	And	4/18/12	Date/Time / () 2 \( \Delta \)			
FINAL SAMPLE	Disposal Method (e.g., Return to customer, per	lab procedure, used in proce	ss)	Di	sposed By			Date/Time	
DISPOSITION								· Superior	

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CH2MHill Pl Company	ateau	Rer	nedi	iation			C	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST						C.O.C.# W12-004-146		
5L1265	2														Page 1 of 1	
Callaston	D.J. Wo						C	Contact/F	Requester	Kare	n Waters-Husted	Tele	ephone No.	376-4650		
SAF No.	AF No. W12-004						Sa	Sampling Origin Hanford Site			Pur	Purchase Order/Charge Code 300071ES20				
Project Title	roject Title RCRA, APRIL 2012						I	Logbook No. HNF-N-50644 /55			Ice Chest No. 6US 155					
Shipped To (Lab) TestAmerica St. Louis							N	Method of Shipment Commercial Carrier				Bill	of Lading/A	ir Bill No. 70	82 9431 9162	
Protocol	RC	RA					P	Priority: 45 Days					site Property			
POSSIBLE SAMP **** Contains Radioa releasable per DOE O	active Ma	terial a	t conc	entations tha		not regulate	d for transportation	n per 49 Cl	RF but are not		SPECIAL INSTRUCTIONS Site Wide Generator Knowledge Int The CACN for all analytical work a	formation Form app		Total Activ	vity Exemption: Yes 🗹 No 🗌	
Sample No.	Filter	*	]	Date		Time	No/Type Con	ntainer			Sample Analysis		Holding T	Time	Preservative	
B2KL82	N	W	4/1	4/12	11	120	3x1-L a	aG	8270_SVO	A_GCM	S: 1,4 Dioxane (1)		7/40 D	ays	Cool~4C	
B2KL82	N	W	4/1	6/12	i	120	1x20-m	LP	Activity Sca	n			6 Mon	ths	None	

Relinquished By J. Woehle	Print S	ign	Date/Time 1426	Received By	Print	Sign		Date/Time /42(	N.	Matr	ix *	
CHPRC	anth be	el APR	1 6 2012	Ssu	PT (		APR	1 6 2012	S	= Soil	DS	= Drum Solids
Relinquished By	0	4-17-12	Date/Time	Received By		01	- 417	Date/Time	SE SO	<ul><li>Sediment</li><li>Solid</li></ul>	DL	<ul><li>Drum Liquids</li><li>Tissue</li></ul>
554,1		1 11 12	10 30	IL Ell A	ugs worth	K goo	4-17-12	1030	SL	= Sludge	WI	= Wipe
Relinquished By	0,	- 4-17-12	Date/Time	Received By	,			Date/Time	W	= Water = Oil	L	<ul><li>Liquid</li><li>Vegetation</li></ul>
Relinquished By	1 Kymin	, , , , , , ,	1400	Fred	EX				A	= Air	x	= Other
Relinquished By			Date/Time	Received By	Tuk		4/10/	Date/Time				-
FED EX				NICHOLDS CONENS	The		118/12	1020			_	
	isposal Method (e.g., Reto	um to customer, per lab p	rocedure, used in proc			Disposed By	y ,			Date	/Time	
DISPOSITION												

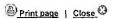
Test
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Company	eau j	Rer	nedi	iatio	n		CHAI	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				
5L1265											Page 1 of 1	
Collector CHPR		7					Contact/	Requester Kar	en Waters-Husted	Telephone No. 376-4650		
SAF No.	W12	2-00	4				Sampling	Origin Han	ford Site	Purchase Order/Charge Code	300071ES20	
Project Title	RCR	lΑ,	APR	IL 2	012		Logbook	No. HNF-N-5	50644 155	Ice Chest No. 605	188 02	
Shipped To (Lab)	Shipped To (Lab) TestAmerica St. Louis							of Shipment Co	mmercial Carrier	Bill of Lading/Air Bill No. 79	34 6394 1625	
Protocol	RCR	A					Priority:	45 Days		Offsite Property No.		
POSSIBLE SAMPLE  ** ** Contains Radioactiv releasable per DOE Order	ive Mate	erial a	t conc	entatio			l for transportation per 49 (	RF but are not	SPECIAL INSTRUCTIONS Site Wide Generator Knowledge Info The CACN for all analytical work at	Hold Time Total Activ	rity Exemption: Yes 🗹 No 🗌	
Sample No. Fil	ilter	*		Date		Time	No/Type Container		Sample Analysis	Holding Time	Preservative	
B2KL60	N	W	4/1	Call	2	1333	3x1-L aG	8270_SVOA_GCI	MS: 1,4 Dioxane (1)	7/40 Days	Cool~4C	
B2KL60 N W 4/14/2 1333 1x21						1333	1x20-mL P	O-mL P Activity Scan 6 Months			None	

Relinquished By	Print Sig		6 2012 1426	Received By	Print	Sign	Date/Time /426		Matri	ix *	
DIJ. Visahila Obrad	Stylibell	APR 1	6 2012	SSUF			APR 1 6 2012	S	= Soil	DS	= Drum Solids
Reiniquished by		4-17-12	Date/Time	Received By		Dr 4-17	-/Z Date/Time	SE SO	= Sediment = Solid	DL	= Drum Liquids = Tissue
55 in 1			1030	RELLIN	goverth	K porcer	1030	SL	= Sludge	WI	= Wipe
Relinquished By	0 1	1-17-12	Date/Time	Received By		7	Date/Time	W	= Water = Oil	L	= Liquid
& Ellingswor	th 12.9-	ref	1400	Fed	EX	<u> </u>		A	= Oil = Air	X	= Vegetation = Other
Relinquished By			Date/Time	Received BY LAS	Aubel	1/19/	Date/Time		3		
FED EX				OWEUS	Dan	> /1912	2 1020				
FINAL SAMPLE DISPOSITION	isposal Method (e.g., Return	n to customer, per lab	procedure, used in proc	ess)		Disposed By			Date/	/Time	
DISCOSITION											

CH2MHill Plateau Remediation Company  CHAIN OF CUSTODY/SAMPLE			ODY/SAMPLE AN	NALYSIS REQUEST C.o.c. # W12-004-						
541265									-	Page 1 of 1
Collector	D.J. ' CHP		ile		Contact/	Requester	Kare	n Waters-Husted	Telephone No. 376-4650	
SAF No.	WI	2-00	4		Sampling	Sampling Origin Hanford Site		Purchase Order/Charge Code	300071ES20	
Project Title				F-N-50	06 44 155	Ice Chest No. 6W5 18	19 02			
Shipped To (Lab) TestAmerica St. Louis Method of Ship			of Shipment							
Protocol	RC	RA	***************************************		Priority:	45 Days			Offsite Property No.	
** ** Contains Radioa releasable per DOE On	ctive Ma	terial a	at concentations		d for transportation per 49 (	CRF but are not		SPECIAL INSTRUCTIONS Site Wide Generator Knowledge Information The CACN for all analytical work at a	mation Form applies.	ty Exemption: Yes 🗸 No 🗌
Sample No.	Filter	*	Date	Time	No/Type Container			Sample Analysis	Holding Time	Preservative
B2KL81	N	W	Alidiz	0900	3x1-L aG	8270_SVO	A_GCM	S: 1,4 Dioxane (1)	7/40 Days	Cool~4C
B2KL81	N	W	Alistiz	0900	1x20-mL P	Activity Sca	ın		6 Months	None

Relinquished By D.J. Woehle	Print Sign	Date/Time/426	Received By	Print	Sign	Date/Time /426	M	latrix *
CHPRC Relinquished By	Alfhbell 4-	APR 1 6 2012  77-12  Date/Time	Received By	1	1 - 4.	APR 1 6 2012 -17-12 Date/Time	S = Soil SE = Sedimen SO = Solid	DS = Drum Solids DL = Drum Liquids T = Tissue
SSW-1 pRelinquished By Ellingsworth	,	1030 4-17-12 Date/Time 1400	Received By  Fed E	$\sim$	Insel!	Date/Time	SL         = Sludge           W         = Water           O         = Oil           A         = Air	<ul> <li>WI = Wipe</li> <li>L = Liquid</li> <li>V = Vegetation</li> <li>X = Other</li> </ul>
Relinquished By		Date/Time	Received By AS WENZ	Aukle Our	4/19/1	2 Date/Time		
FINAL SAMPLE Dispo	osal Method (e.g., Return to	customer, per lab procedure, used in proc	cess)	Di	sposed By		I	Date/Time





**Detailed Results** 

Tracking no.: 798294319162 Select time format: 12H

Delivered

**Delivered**Signed for by: B.DANIELS

Shipment Dates

Destination

Ship date Apr 17, 2012 Delivery date Apr 18, 2012 10:19 AM

EARTH CITY, MO Signature Proof of Delivery

**Shipment Options** 

Hold at FedEx Location

Hold at FedEx Location service is not available for this shipment.

Shipment Facts

Service type Weight

Priority Overnight 75.0 lbs/34.0 kg

Delivered to Reference

Shipping/Receiving GWS-155

Shipment Travel History

Select time zone: Local Scan Time

Date/Time	Activity	Location	Details	
Apr 18, 2012 10:19 AM	Delivered	EARTH CITY, MO		
Apr 18, 2012 7:11 AM	On FedEx vehicle for delivery	EARTH CITY, MO		
Apr 18, 2012 7:04 AM	At local FedEx facility	EARTH CITY, MO		
Apr 18, 2012 5:00 AM	At destination sort facility	BERKELEY, MO		
Apr 18, 2012 4:17 AM	Departed FedEx location	MEMPHIS, TN		
Apr 18, 2012 12:45 AM	Arrived at FedEx location	MEMPHIS, TN	<del></del>	-
Apr 17, 2012 5:14 PM	Left FedEx origin facility	PASCO, WA		
Apr 17, 2012 4:05 PM	Picked up	PASCO, WA		
Apr 17, 2012 2:26 PM	Shipment information sent to Fed	Ex :	1	

Print page | Close ©



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Det	aila.	สม	2011	te
1751	and	11 176	- DU	LO.

Select time format: 12H Tracking no.: 793463941625

**Delivered** 

**Delivered** Signed for by: B.DANIELS

Shipment Dates

Destination

Ship date Apr 17, 2012 Delivery date Apr 18, 2012 10:19 AM

EARTH CITY, MO Signature Proof of Delivery

**Shipment Options** 

Hold at FedEx Location

Hold at FedEx Location service is not available for this shipment.

Shipment Facts

Service type Weight

Priority Overnight 46.0 lbs/20.9 kg

Delivered to Reference

Shipping/Receiving gws-189-02

Shipment Travel History

Select time zone: Local Scan Time

Date/Time	Activity	Location	Details	
Apr 18, 2012 10:19 AM	Delivered	EARTH CITY, MO		
Apr 18, 2012 7:11 AM	On FedEx vehicle for delivery	EARTH CITY, MO		
Apr 18, 2012 7:04 AM	At local FedEx facility	EARTH CITY, MO		
Apr 18, 2012 5:00 AM	At destination sort facility	BERKELEY, MO	p	
Apr 18, 2012 4:17 AM	Departed FedEx location	MEMPHIS, TN	e e	_
Apr 18, 2012 12:45 AM	Arrived at FedEx location	MEMPHIS, TN		
Apr 17, 2012 5:14 PM	Left FedEx origin facility	PASCO, WA		
Apr 17, 2012 4:05 PM	Picked up	PASCO, WA	T T	
Apr 17, 2012 2:41 PM	Shipment information sent to Fed	Ex		

Corrective Action:

Client Contact Name:

Informed by:

Sample(s) processed "as is"

Sample(s) on hold until:

Project Management Review:

This form must be completed at the time the items are being checked in. If any item is completed by someone other than the initiator, then that person is required to apply their withal and the date next to that item.

ADMIN-0004 rev13, REVISED 05/27/11 \\Slsvr01\QA\FORMS\ST-LOUIS\ADMIN\Admin-0004 CUR.doc

# **GC/MS VOLATILES**

SDG #SL1265 62 of 172

## Client Sample ID: B2KFW5

#### GC/MS Volatiles

Lot-Sample #...: F2D120462-001 Work Order #...: MR0FX1AJ Matrix...... WATER

Prep Batch #...: 2109084

Dilution Factor: 1 Method.....: SW846 8260B

		REPORTIN	1G	
PARAMETER	RESULT	LIMIT	UNITS	MDL
Acetonitrile	ND	5.0	ug/L	2.0
Acrolein	ND	10	ug/L	2.8
Bromodichloromethane	ND	1.0	ug/L	0.088
Bromoform	ND	1.0	ug/L	0.17
Bromomethane	ND	2.0	ug/L	0.25
Chlorobenzene	ND	1.0	ug/L	0.15
Dibromochloromethane	ND	1.0	ug/L	0.13
1,2-Dibromo-3-chloro-	ND	1.0	ug/L	0.41
propane				
Chloroethane	ND	2.0	ug/L	0.099
Chloromethane	ND	2.0	ug/L	0.077
Allyl chloride	ND	2.0	ug/L	0.11
1,2-Dibromoethane	ND	1.0	ug/L	0.13
Dibromomethane	ND	1.0	ug/L	0.21
trans-1,4-Dichloro-	ND	2.0	ug/L	0.29
2-butene				
Dichlorodifluoromethane	ND	2.0	ug/L	0.084
1,1-Dichloroethene	ND	1.0	ug/L	0.083
1,2-Dichloroethene	ND	2.0	ug/L	0.15
(total)				
1,2-Dichloropropane	ND	1.0	ug/L	0.097
cis-1,3-Dichloropropene	ND	1.0	ug/L	0.073
trans-1,3-Dichloropropene	ND	1.0	ug/L	0.083
1,4-Dioxane	ND	20	ug/L	7.6
Ethylbenzene	ND	1.0	ug/L	0.086
Ethyl methacrylate	ND	1.0	ug/L	0.11
Trichlorofluoromethane	ND	1.0	ug/L	0.11
2-Hexanone	ND	5.0	ug/L	0.22
Iodomethane	ND	2.0	ug/L	0.092
Isobutanol	ND	80	ug/L	8.7
Methacrylonitrile	ND	5.0	ug/L	0.50
Methyl methacrylate	ND	1.0	ug/L	0.26
Styrene	ND	1.0	ug/L	0.074
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	0.090
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.098
1,2,3-Trichloropropane	ND	1.0	ug/L	0.15
Vinyl acetate	ND	2.0	ug/L	0.18
Chloroprene	ND	1.0	ug/L	0.097
Vinyl chloride	ND	2.0	ug/L	0.084

(Continued on next page)

# Client Sample ID: B2KFW5

## GC/MS Volatiles

Lot-Sample #...: F2D120462-001 Work Order #...: MR0FX1AJ Matrix...... WATER

		REPORTIN	IG	
PARAMETER	RESULT	LIMIT	UNITS	MDL
Acetone	ND	2.0	ug/L	0.34
Methylene chloride	3.3 T	1.0	ug/L	0.27
Carbon disulfide	ND	1.0	ug/L	0.051
1,1-Dichloroethane	ND	1.0	ug/L	0.068
2-Butanone	ND	5.0	ug/L	0.52
Chloroform	ND	1.0	ug/L	0.10
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.087
Propionitrile	ND	5.0	ug/L	1.4
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.083
1,1,1-Trichloroethane	ND	1.0	ug/L	0.069
Carbon tetrachloride	ND	1.0	ug/L	0.12
1,2-Dichloroethane	ND	1.0	ug/L	0.10
Benzene	ND	1.0	ug/L	0.064
Trichloroethene	ND	1.0	ug/L	0.25
4-Methyl-2-pentanone	ND	5.0	ug/L	0.12
1,1,2-Trichloroethane	ND	1.0	ug/L	0.15
Tetrachloroethene	ND	1.0	ug/L	0.18
Tetrahydrofuran	ND	10	ug/L	1.1
Xylenes (total)	ND	3.0	ug/L	0.20
1,4-Dichlorobenzene	ND	1.0	ug/L	0.12
1-Butanol	ND	40	ug/L	12
Toluene	ND	1.0	ug/L	0.072
	PERCENT	RECOVERY		
SURROGATE	RECOVERY	LIMITS		
Toluene-d8	102	(85 - 12	0)	
Dibromofluoromethane	101	(85 - 11	.8)	
1,2-Dichloroethane-d4	94	(80 - 11	9)	
4-Bromofluorobenzene	93	(84 - 11	5)	
NOTE(S):				

T Spike sample recovery is outside control limits.

ug/L

# CH2M Hill Plateau Remediation DOE RL

## B2KFW5

## GC/MS Volatiles

	OC/115 VOIACITES	
Lot-Sample #: F2D120462-001	Work Order #: MR0FX1AJ	Matrix: WATER
MASS SPECTROMETER/DATA SYSTEM	(MSDS) TENTATIVELY IDENTIFIED	COMPOUNDS
PARAMETER	Control W	RETENTION TIME UNITS

None

## Client Sample ID: B2KFW6

#### GC/MS Volatiles

Lot-Sample #...: F2D120462-002 Work Order #...: MR0F11AE Matrix...... WATER

Prep Batch #...: 2109084

Dilution Factor: 1 Method.....: SW846 8260B

		REPORTING		
PARAMETER	RESULT	LIMIT	UNITS	MDL
Acetonitrile	ND	5.0	ug/L	2.0
Acrolein	ND	10	ug/L	2.8
Bromodichloromethane	ND	1.0	ug/L	0.088
Bromoform	ND	1.0	ug/L	0.17
Bromomethane	ND	2.0	ug/L	0.25
Chlorobenzene	ND	1.0	ug/L	0.15
Dibromochloromethane	ND	1.0	ug/L	0.13
1,2-Dibromo-3-chloro-	ND	1.0	ug/L	0.41
propane				
Chloroethane	ND	2.0	ug/L	0.099
Chloromethane	ND	2.0	ug/L	0.077
Allyl chloride	ND	2.0	ug/L	0.11
1,2-Dibromoethane	ND	1.0	ug/L	0.13
Dibromomethane	ND	1.0	ug/L	0.21
trans-1,4-Dichloro-	ND	2.0	ug/L	0.29
2-butene				
Dichlorodifluoromethane	ND	2.0	ug/L	0.084
1,1-Dichloroethene	ND	1.0	ug/L	0.083
1,2-Dichloroethene	ND	2.0	ug/L	0.15
(total)				
1,2-Dichloropropane	ND	1.0	ug/L	0.097
cis-1,3-Dichloropropene	ND	1.0	ug/L	0.073
trans-1,3-Dichloropropene	ND	1.0	ug/L	0.083
1,4-Dioxane	ND	20	ug/L	7.6
Ethylbenzene	ND	1.0	ug/L	0.086
Ethyl methacrylate	ND	1.0	ug/L	0.11
Trichlorofluoromethane	ND	1.0	ug/L	0.11
2-Hexanone	ND	5.0	ug/L	0.22
Iodomethane	ND	2.0	ug/L	0.092
Isobutanol	ND	80	ug/L	8.7
Methacrylonitrile	ND	5.0	ug/L	0.50
Methyl methacrylate	ND	1.0	ug/L	0.26
Styrene	ND	1.0	ug/L	0.074
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	0.090
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.098
1,2,3-Trichloropropane	ND	1.0	ug/L	0.15
Vinyl acetate	ND	2.0	ug/L	0.18
Chloroprene	ND	1.0	ug/L	0.097
Vinyl chloride	ND	2.0	ug/L	0.084

(Continued on next page)

# Client Sample ID: B2KFW6

## GC/MS Volatiles

Lot-Sample #...: F2D120462-002 Work Order #...: MR0F11AE Matrix..... WATER

		REPORTIN	G	
PARAMETER	RESULT	LIMIT	UNITS	MDL
Acetone	ND	2.0	ug/L	0.34
Methylene chloride	ND T	1.0	ug/L	0.27
Carbon disulfide	ND	1.0	ug/L	0.051
1,1-Dichloroethane	ND	1.0	ug/L	0.068
2-Butanone	ND	5.0	ug/L	0.52
Chloroform	3.1	1.0	ug/L	0.10
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.087
Propionitrile	ND	5.0	ug/L	1.4
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.083
1,1,1-Trichloroethane	ND	1.0	ug/L	0.069
1,2-Dichloroethane	ND	1.0	ug/L	0.10
Benzene	ND	1.0	ug/L	0.064
Trichloroethene	2.3	1.0	ug/L	0.25
4-Methyl-2-pentanone	ND	5.0	ug/L	0.12
1,1,2-Trichloroethane	ND	1.0	ug/L	0.15
Tetrachloroethene	ND	1.0	ug/L	0.18
Tetrahydrofuran	ND	10	ug/L	1.1
Xylenes (total)	ND	3.0	ug/L	0.20
1,4-Dichlorobenzene	ND	1.0	ug/L	0.12
1-Butanol	ND	40	ug/L	12
Toluene	ND	1.0	ug/L	0.072
	PERCENT	RECOVERY		
SURROGATE	RECOVERY	LIMITS		
Toluene-d8	102	(85 - 12	0)	
Dibromofluoromethane	114	(85 - 11)	8)	
1,2-Dichloroethane-d4	108	(80 - 11)	9)	
4-Bromofluorobenzene	94	(84 - 11	5)	
NOTE (S):				

T Spike sample recovery is outside control limits.

ug/L

# CH2M Hill Plateau Remediation DOE RL

## B2KFW6

## GC/MS Volatiles

	GC/115 VOIACITES	
Lot-Sample #: F2D120462-002	Work Order #: MR0F11AE	Matrix: WATER
MASS SPECTROMETER/DATA SYSTEM (	MSDS) TENTATIVELY IDENTIFIE	D COMPOUNDS
PARAMETER	ESTIMATED CAS # RESULT	RETENTION TIME UNITS

None

# Client Sample ID: B2KFW6

## GC/MS Volatiles

Lot-Sample #: F2D120462-0 Date Sampled: 04/10/12 Prep Date: 04/18/12 Prep Batch #: 2109084	002 Work Order # Date Received Analysis Date	.: 04/12/12	Mat	rix WATER
Dilution Factor: 25	Method	.: SW846 8260	В	
		REPORTING		
PARAMETER	RESULT	LIMIT	UNITS	MDL
Carbon tetrachloride	390 D	25	ug/L	3.1
	PERCENT	RECOVERY		
SURROGATE	RECOVERY	LIMITS		
Toluene-d8	104	(85 - 120)		
Dibromofluoromethane	108	(85 - 118)		
1,2-Dichloroethane-d4	99	(80 - 119)		
4-Bromofluorobenzene	100	(84 - 115)		
NOTE(S):				

D Result was obtained from the analysis of a dilution.

# Client Sample ID: B2L245

#### GC/MS Volatiles

Lot-Sample #: F2D120464-001	Work Order #: MR0F61AA	Matrix WATER
04/10/10	D . D . D . O . (10 / 10	

Prep Batch #...: 2108089

Dilution Factor: 1 Method.....: SW846 8260B

		REPORTING		
PARAMETER	RESULT	LIMIT	UNITS	MDL
1,1-Dichloroethene	ND	1.0	ug/L	0.083
1,4-Dioxane	ND	80	ug/L	7.6
Ethylbenzene	ND	1.0	ug/L	0.086
Vinyl chloride	ND	2.0	ug/L	0.084
Acetone	ND	2.0	ug/L	0.34
Methylene chloride	0.34 J	1.0	ug/L	0.27
Carbon disulfide	ND	1.0	ug/L	0.051
1,1-Dichloroethane	ND	1.0	ug/L	0.068
2-Butanone	ND	5.0	ug/L	0.52
Chloroform	ND	1.0	ug/L	0.10
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.087
Propionitrile	ND	5.0	ug/L	1.4
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.083
1,1,1-Trichloroethane	ND	1.0	ug/L	0.069
Carbon tetrachloride	ND	1.0	ug/L	0.12
1,2-Dichloroethane	ND	1.0	ug/L	0.10
Benzene	ND	1.0	ug/L	0.064
Trichloroethene	ND	1.0	ug/L	0.25
4-Methyl-2-pentanone	ND	5.0	ug/L	0.12
1,1,2-Trichloroethane	ND	1.0	ug/L	0.15
Tetrachloroethene	ND	1.0	ug/L	0.18
Tetrahydrofuran	ND	10	ug/L	1.1
Xylenes (total)	ND	3.0	ug/L	0.20
1,4-Dichlorobenzene	ND	1.0	ug/L	0.12
1-Butanol	ND	40	ug/L	12
Toluene	ND	1.0	ug/L	0.072
	PERCENT	RECOVERY		
SURROGATE	RECOVERY	LIMITS		
Toluene-d8	99	(85 - 120)		
Dibromofluoromethane	106	(85 - 118)		
1,2-Dichloroethane-d4	108	(80 - 119)		
4-Bromofluorobenzene	100	(84 - 11	.5)	
NOME (C)				

## NOTE(S):

J Estimated result. Result is less than RL.

ug/L

# CH2M Hill Plateau Remediation DOE RL

## B2L245

## GC/MS Volatiles

	GC/HS VOIECTIES	
Lot-Sample #: F2D120464-001	Work Order #: MR0F61AA	Matrix: WATER
MASS SPECTROMETER/DATA SYSTEM	(MSDS) TENTATIVELY IDEN	TIFIED COMPOUNDS
PARAMETER	ESTIM CAS # RESUI	

None

# Client Sample ID: B2L246

#### GC/MS Volatiles

<b>Lot-Sample #:</b> F2D130428-001	Work Order #: MR0691AC	Matrix WATER
04/11/10	D	

Prep Batch #...: 2108089

Dilution Factor: 1 Method.....: SW846 8260B

R			REPORTING		
PARAMETER	RESULT	LIMIT	UNITS	MDL	
1,1-Dichloroethene	ND	1.0	ug/L	0.083	
1,4-Dioxane	ND	80	ug/L	7.6	
Ethylbenzene	ND	1.0	ug/L	0.086	
Vinyl chloride	ND	2.0	ug/L	0.084	
Acetone	ND	2.0	ug/L	0.34	
Methylene chloride	13	1.0	ug/L	0.27	
Carbon disulfide	ND	1.0	ug/L	0.051	
1,1-Dichloroethane	ND	1.0	ug/L	0.068	
2-Butanone	ND	5.0	ug/L	0.52	
Chloroform	ND	1.0	ug/L	0.10	
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.087	
Propionitrile	ND	5.0	ug/L	1.4	
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.083	
1,1,1-Trichloroethane	ND	1.0	ug/L	0.069	
Carbon tetrachloride	ND	1.0	ug/L	0.12	
1,2-Dichloroethane	ND	1.0	ug/L	0.10	
Benzene	ND	1.0	ug/L	0.064	
Trichloroethene	ND	1.0	ug/L	0.25	
4-Methyl-2-pentanone	ND	5.0	ug/L	0.12	
1,1,2-Trichloroethane	ND	1.0	ug/L	0.15	
Tetrachloroethene	ND	1.0	ug/L	0.18	
Tetrahydrofuran	ND	10	ug/L	1.1	
Xylenes (total)	ND	3.0	ug/L	0.20	
1,4-Dichlorobenzene	ND	1.0	ug/L	0.12	
1-Butanol	ND	40	ug/L	12	
Toluene	0.10 J	1.0	ug/L	0.072	
	PERCENT	RECOVERY			
SURROGATE	RECOVERY	LIMITS			
Toluene-d8	102	(85 - 120)			
Dibromofluoromethane	109	(85 - 118)			
1,2-Dichloroethane-d4	112	(80 - 11	9)		
4-Bromofluorobenzene	98	(84 - 115)			

## NOTE(S):

J Estimated result. Result is less than RL.

ug/L

## CH2M Hill Plateau Remediation DOE RL

## B2L246

## GC/MS Volatiles

Lot-Sample #: F2D130428-001 Wo	rk Order #: MR	0691AC	Matrix:	WATER
MASS SPECTROMETER/DATA SYSTEM (MS	DS) TENTATIVEL	Y IDENTIFIED	COMPOUNDS	
PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS

None

## Client Sample ID: B2KFX5

#### GC/MS Volatiles

Lot-Sample #...: F2D130430-001 Work Order #...: MR07H1AC Matrix..... WATER

Prep Batch #...: 2109084

Dilution Factor: 1 Method.....: SW846 8260B

		REPORTIN	IG	
PARAMETER	RESULT	LIMIT	UNITS	MDL
1,1-Dichloroethene	ND	1.0	ug/L	0.083
1,2-Dichloroethene	ND	2.0	ug/L	0.15
(total)				
1,2-Dichloropropane	ND	1.0	ug/L	0.097
cis-1,3-Dichloropropene	ND	1.0	ug/L	0.073
trans-1,3-Dichloropropene	ND	1.0	ug/L	0.083
1,4-Dioxane	ND	20	ug/L	7.6
Ethylbenzene	ND	1.0	ug/L	0.086
Ethyl methacrylate	ND	1.0	ug/L	0.11
Trichlorofluoromethane	ND	1.0	ug/L	0.11
2-Hexanone	ND	5.0	ug/L	0.22
Iodomethane	ND	2.0	ug/L	0.092
Isobutanol	ND	80	ug/L	8.7
Methacrylonitrile	ND	5.0	ug/L	0.50
Methyl methacrylate	ND	1.0	ug/L	0.26
Styrene	ND	1.0	ug/L	0.074
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	0.090
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.098
1,2,3-Trichloropropane	ND	1.0	ug/L	0.15
Vinyl acetate	ND	2.0	ug/L	0.18
Chloroprene	ND	1.0	ug/L	0.097
Acetonitrile	ND	5.0	ug/L	2.0
Acrolein	ND	10	ug/L	2.8
Bromodichloromethane	ND	1.0	ug/L	0.088
Bromoform	ND	1.0	ug/L	0.17
Bromomethane	ND	2.0	ug/L	0.25
Chlorobenzene	ND	1.0	ug/L	0.15
Dibromochloromethane	ND	1.0	ug/L	0.13
1,2-Dibromo-3-chloro-	ND	1.0	ug/L	0.41
propane				
Chloroethane	ND	2.0	ug/L	0.099
Chloromethane	ND	2.0	ug/L	0.077
Allyl chloride	ND	2.0	ug/L	0.11
1,2-Dibromoethane	ND	1.0	ug/L	0.13
Dibromomethane	ND	1.0	ug/L	0.21
trans-1,4-Dichloro-	ND	2.0	ug/L	0.29
2-butene				
Dichlorodifluoromethane	ND	2.0	ug/L	0.084
Vinyl chloride	ND	2.0	ug/L	0.084

## Client Sample ID: B2KFX5

## GC/MS Volatiles

Lot-Sample #...: F2D130430-001 Work Order #...: MR07H1AC Matrix..... WATER

		REPORTING		
PARAMETER	RESULT	LIMIT	UNITS	MDL
Acetone	ND	2.0	ug/L	0.34
Methylene chloride	ND T	1.0	ug/L	0.27
Carbon disulfide	ND	1.0	ug/L	0.051
1,1-Dichloroethane	ND	1.0	ug/L	0.068
2-Butanone	ND	5.0	ug/L	0.52
Chloroform	6.2	1.0	ug/L	0.10
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.087
Propionitrile	ND	5.0	ug/L	1.4
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.083
1,1,1-Trichloroethane	ND	1.0	ug/L	0.069
1,2-Dichloroethane	ND	1.0	ug/L	0.10
Benzene	ND	1.0	ug/L	0.064
Trichloroethene	3.7	1.0	ug/L	0.25
4-Methyl-2-pentanone	ND	5.0	ug/L	0.12
1,1,2-Trichloroethane	ND	1.0	ug/L	0.15
Tetrachloroethene	ND	1.0	ug/L	0.18
Tetrahydrofuran	ND	10	ug/L	1.1
Xylenes (total)	ND	3.0	ug/L	0.20
1,4-Dichlorobenzene	ND	1.0	ug/L	0.12
1-Butanol	ND	40	ug/L	12
Toluene	ND	1.0	ug/L	0.072
	PERCENT	RECOVERY		
SURROGATE	RECOVERY	LIMITS		
Toluene-d8	101	(85 - 120	)	
Dibromofluoromethane	113	(85 - 118)	)	
1,2-Dichloroethane-d4	104	(80 - 119)	)	
4-Bromofluorobenzene	101	(84 - 115	)	
NOTE(S):				

T Spike sample recovery is outside control limits.

ug/L

## CH2M Hill Plateau Remediation DOE RL

## B2KFX5

## GC/MS Volatiles

	,			
Lot-Sample #: F2D130430-001 W	Work Order #: MR(	)7H1AC	Matrix:	WATER
MASS SPECTROMETER/DATA SYSTEM (M	1SDS) TENTATIVELY	Y IDENTIFIED	COMPOUNDS	
PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS

None

## Client Sample ID: B2KFX5

## GC/MS Volatiles

Lot-Sample #: F2D130430-001 Date Sampled: 04/11/12 Prep Date: 04/18/12 Prep Batch #: 2109084	Work Order #: Date Received: Analysis Date:	04/13/12	Matrix	WATER
Dilution Factor: 25	Method:	SW846 8260	В	
		REPORTING		
PARAMETER	RESULT	LIMIT	UNITS	MDL
Carbon tetrachloride	390 D	25	ug/L	3.1
	PERCENT	RECOVERY		
SURROGATE	RECOVERY	LIMITS		
Toluene-d8	105	(85 - 120)		
Dibromofluoromethane	110	(85 - 118)		
1,2-Dichloroethane-d4	103	(80 - 119)		
4-Bromofluorobenzene	99	(84 - 115)		
NOTE(S):				

D Result was obtained from the analysis of a dilution.

## Client Sample ID: B2KFF2

#### GC/MS Volatiles

Lot-Sample #...: F2D170439-001 Work Order #...: MR2R61AF Matrix..... WATER

Prep Batch #...: 2109084

Dilution Factor: 1 Method.....: SW846 8260B

		REPORTING		
PARAMETER	RESULT	LIMIT	UNITS	MDL
Acetonitrile	ND	5.0	ug/L	2.0
Acrolein	ND	10	ug/L	2.8
Bromodichloromethane	ND	1.0	ug/L	0.088
Bromoform	ND	1.0	ug/L	0.17
Bromomethane	ND	2.0	ug/L	0.25
Chlorobenzene	ND	1.0	ug/L	0.15
Dibromochloromethane	ND	1.0	ug/L	0.13
1,2-Dibromo-3-chloro-	ND	1.0	ug/L	0.41
propane				
Chloroethane	ND	2.0	ug/L	0.099
Chloromethane	ND	2.0	ug/L	0.077
Allyl chloride	ND	2.0	ug/L	0.11
1,2-Dibromoethane	ND	1.0	ug/L	0.13
Dibromomethane	ND	1.0	ug/L	0.21
trans-1,4-Dichloro-	ND	2.0	ug/L	0.29
2-butene				
Dichlorodifluoromethane	ND	2.0	ug/L	0.084
1,1-Dichloroethene	ND	1.0	ug/L	0.083
1,2-Dichloroethene	ND	2.0	ug/L	0.15
(total)				
1,2-Dichloropropane	ND	1.0	ug/L	0.097
cis-1,3-Dichloropropene	ND	1.0	ug/L	0.073
trans-1,3-Dichloropropene	ND	1.0	ug/L	0.083
1,4-Dioxane	ND	20	ug/L	7.6
Ethylbenzene	ND	1.0	ug/L	0.086
Ethyl methacrylate	ND	1.0	ug/L	0.11
Trichlorofluoromethane	ND	1.0	ug/L	0.11
2-Hexanone	ND	5.0	ug/L	0.22
Iodomethane	ND	2.0	ug/L	0.092
Isobutanol	ND	80	ug/L	8.7
Methacrylonitrile	ND	5.0	ug/L	0.50
Methyl methacrylate	ND	1.0	ug/L	0.26
Styrene	ND	1.0	ug/L	0.074
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	0.090
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.098
1,2,3-Trichloropropane	ND	1.0	ug/L	0.15
Vinyl acetate	ND	2.0	ug/L	0.18
Chloroprene	ND	1.0	ug/L	0.097
Vinyl chloride	ND	2.0	ug/L	0.084

## Client Sample ID: B2KFF2

## GC/MS Volatiles

Lot-Sample #...: F2D170439-001 Work Order #...: MR2R61AF Matrix...... WATER

		REPORTIN	IG	
PARAMETER	RESULT	LIMIT	UNITS	MDL
Acetone	ND	2.0	ug/L	0.34
Methylene chloride	ND T	1.0	ug/L	0.27
Carbon disulfide	ND	1.0	ug/L	0.051
1,1-Dichloroethane	ND	1.0	ug/L	0.068
2-Butanone	ND	5.0	ug/L	0.52
Chloroform	ND	1.0	ug/L	0.10
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.087
Propionitrile	ND	5.0	ug/L	1.4
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.083
1,1,1-Trichloroethane	ND	1.0	ug/L	0.069
Carbon tetrachloride	0.53 J	1.0	ug/L	0.12
1,2-Dichloroethane	ND	1.0	ug/L	0.10
Benzene	ND	1.0	ug/L	0.064
Trichloroethene	ND	1.0	ug/L	0.25
4-Methyl-2-pentanone	ND	5.0	ug/L	0.12
1,1,2-Trichloroethane	ND	1.0	ug/L	0.15
Tetrachloroethene	ND	1.0	ug/L	0.18
Tetrahydrofuran	ND	10	ug/L	1.1
Xylenes (total)	ND	3.0	ug/L	0.20
1,4-Dichlorobenzene	ND	1.0	ug/L	0.12
1-Butanol	ND	40	ug/L	12
Toluene	ND	1.0	ug/L	0.072
	PERCENT	RECOVERY	7	
SURROGATE	RECOVERY	LIMITS		
Toluene-d8	102	(85 - 12	20)	
Dibromofluoromethane	106	(85 - 11)	.8)	
1,2-Dichloroethane-d4	108	(80 - 11	9)	
4-Bromofluorobenzene	98	(84 - 11	.5)	
NOTE(S):				

T Spike sample recovery is outside control limits.

J Estimated result. Result is less than RL.

#### B2KFF2

#### GC/MS Volatiles

Lot-Sample #: F2D170439-001 Work Order #: MR2R61AF Matrix: WATER

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

		ESTIMATED	RET	ENTION	
PARAMETER	CAS #	RESULT	TIM	ΊE	UNITS
Adamantane	281-23-2	2.7 J	М 15.	022	ug/L
Unknown benzene derivative		3.9 J	M 15.	519	ug/L
Unknown benzene derivative		4.1 J	M 15.	649	ug/L
1H-indene, 2,3-dihydro-1,6-dim	17059-48-2	2.2 J	M 15.	696	ug/L
Unknown		5.2 J	М 15.	921	ug/L
Unknown benzene derivative		8.2 J	M 16.	134	ug/L
Unknown benzene derivative		13 J	M 16.	181	ug/L
Unknown benzene derivative		5.4 J	M 16.	264	ug/L
Naphthalene, 1,2,3,4-tetrahydr	3877-19-8	7.2 J	M 16.	394	ug/L
Unknown benzene derivative		5.9 J	М 16.	454	ug/L

## NOTE(S):

 $\label{eq:mass} \mathbf{M}: \textbf{Result was measured against nearest internal standard assuming a response factor of 1.}$ 

## Client Sample ID: B2K4B7

#### GC/MS Volatiles

Lot-Sample #...: F2D170441-001 Work Order #...: MR2TD1AC Matrix...... WATER

Prep Batch #...: 2109084

Dilution Factor: 1 Method.....: SW846 8260B

		REPORTIN	IG	
PARAMETER	RESULT	LIMIT	UNITS	MDL
Acetonitrile	ND	5.0	ug/L	2.0
Acrolein	ND	10	ug/L	2.8
Acrylonitrile	ND	10	ug/L	0.58
Bromodichloromethane	ND	1.0	ug/L	0.088
Bromoform	ND	1.0	ug/L	0.17
Bromomethane	ND	2.0	ug/L	0.25
Chlorobenzene	ND	1.0	ug/L	0.15
Dibromochloromethane	ND	1.0	ug/L	0.13
1,2-Dibromo-3-chloro-	ND	1.0	ug/L	0.41
propane				
Chloroethane	ND	2.0	ug/L	0.099
Chloromethane	ND	2.0	ug/L	0.077
Allyl chloride	ND	2.0	ug/L	0.11
1,2-Dibromoethane	ND	1.0	ug/L	0.13
Dibromomethane	ND	1.0	ug/L	0.21
trans-1,4-Dichloro-	ND	2.0	ug/L	0.29
2-butene				
Dichlorodifluoromethane	ND	2.0	ug/L	0.084
1,1-Dichloroethene	ND	1.0	ug/L	0.083
1,2-Dichloroethene	ND	2.0	ug/L	0.15
(total)				
1,2-Dichloropropane	ND	1.0	ug/L	0.097
cis-1,3-Dichloropropene	ND	1.0	ug/L	0.073
trans-1,3-Dichloropropene	ND	1.0	ug/L	0.083
1,4-Dioxane	ND	20	ug/L	7.6
Ethylbenzene	ND	1.0	ug/L	0.086
Ethyl methacrylate	ND	1.0	ug/L	0.11
Trichlorofluoromethane	ND	1.0	ug/L	0.11
2-Hexanone	ND	5.0	ug/L	0.22
Iodomethane	ND	2.0	ug/L	0.092
Isobutanol	ND	80	ug/L	8.7
Methacrylonitrile	ND	5.0	ug/L	0.50
Methyl methacrylate	ND	1.0	ug/L	0.26
Styrene	ND	1.0	ug/L	0.074
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	0.090
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.098
1,2,3-Trichloropropane	ND	1.0	ug/L	0.15
Vinyl acetate	ND	2.0	ug/L	0.18
Chloroprene	ND	1.0	ug/L	0.097

## Client Sample ID: B2K4B7

## GC/MS Volatiles

Lot-Sample #...: F2D170441-001 Work Order #...: MR2TD1AC Matrix..... WATER

		REPORTIN	IG	
PARAMETER	RESULT	LIMIT	UNITS	MDL
Vinyl chloride	ND	2.0	ug/L	0.084
Acetone	ND	2.0	ug/L	0.34
Methylene chloride	ND T	1.0	ug/L	0.27
Carbon disulfide	ND	1.0	ug/L	0.051
1,1-Dichloroethane	ND	1.0	ug/L	0.068
2-Butanone	ND	5.0	ug/L	0.52
Chloroform	ND	1.0	ug/L	0.10
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.087
Propionitrile	ND	5.0	ug/L	1.4
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.083
1,1,1-Trichloroethane	ND	1.0	ug/L	0.069
Carbon tetrachloride	0.32 J	1.0	ug/L	0.12
1,2-Dichloroethane	ND	1.0	ug/L	0.10
Benzene	ND	1.0	ug/L	0.064
Trichloroethene	ND	1.0	ug/L	0.25
4-Methyl-2-pentanone	ND	5.0	ug/L	0.12
1,1,2-Trichloroethane	ND	1.0	ug/L	0.15
Tetrachloroethene	ND	1.0	ug/L	0.18
Tetrahydrofuran	ND	10	ug/L	1.1
Xylenes (total)	ND	3.0	ug/L	0.20
1,4-Dichlorobenzene	ND	1.0	ug/L	0.12
1-Butanol	ND	40	ug/L	12
Toluene	ND	1.0	ug/L	0.072
	PERCENT	RECOVERY		
SURROGATE	RECOVERY	LIMITS		
Toluene-d8	98	(85 - 12	20)	
Dibromofluoromethane	108	(85 - 11	.8)	
1,2-Dichloroethane-d4	112	(80 - 11	.9)	
4-Bromofluorobenzene	96	(84 - 11	.5)	
NOTE (S) -				

## NOTE(S):

T Spike sample recovery is outside control limits.

J Estimated result. Result is less than RL.

## B2K4B7

## GC/MS Volatiles

Lot-Sample #: F2D170441-001 Wo	rk Order #: MR2TD1AC	Matrix: WATER
MASS SPECTROMETER/DATA SYSTEM (MS	DS) TENTATIVELY IDENTIFI	ED COMPOUNDS
PARAMETER None	CAS # ESTIMATED	RETENTION TIME UNITS ug/L

## Client Sample ID: B2L247

#### GC/MS Volatiles

Lot-Sample #: F2	2D170442-012 W	Work Order #	MR2TT1AC	Matrix:	WATER
	110110		7 04/45/40		

Prep Batch #...: 2109084

Dilution Factor: 1 Method.....: SW846 8260B

		REPORTIN	IG	
PARAMETER	RESULT	LIMIT	UNITS	MDL
1,1-Dichloroethene	ND	1.0	ug/L	0.083
1,4-Dioxane	ND	80	ug/L	7.6
Ethylbenzene	ND	1.0	ug/L	0.086
Vinyl chloride	ND	2.0	ug/L	0.084
Acetone	ND	2.0	ug/L	0.34
Methylene chloride	21 T	1.0	ug/L	0.27
Carbon disulfide	ND	1.0	ug/L	0.051
1,1-Dichloroethane	ND	1.0	ug/L	0.068
2-Butanone	ND	5.0	ug/L	0.52
Chloroform	ND	1.0	ug/L	0.10
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.087
Propionitrile	ND	5.0	ug/L	1.4
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.083
1,1,1-Trichloroethane	ND	1.0	ug/L	0.069
Carbon tetrachloride	ND	1.0	ug/L	0.12
1,2-Dichloroethane	ND	1.0	ug/L	0.10
Benzene	ND	1.0	ug/L	0.064
Trichloroethene	ND	1.0	ug/L	0.25
4-Methyl-2-pentanone	ND	5.0	ug/L	0.12
1,1,2-Trichloroethane	ND	1.0	ug/L	0.15
Tetrachloroethene	ND	1.0	ug/L	0.18
Tetrahydrofuran	ND	10	ug/L	1.1
Xylenes (total)	ND	3.0	ug/L	0.20
1,4-Dichlorobenzene	ND	1.0	ug/L	0.12
1-Butanol	ND	40	ug/L	12
Toluene	0.15 J	1.0	ug/L	0.072
	PERCENT	RECOVERY	7	
SURROGATE	RECOVERY	LIMITS		
Toluene-d8	104	(85 - 12	20)	
Dibromofluoromethane	102	(85 - 11	.8)	
1,2-Dichloroethane-d4	94	(80 - 11	9)	
4-Bromofluorobenzene	105	(84 - 11	.5)	

## NOTE(S):

T Spike sample recovery is outside control limits.

J Estimated result. Result is less than RL.

ug/L

## CH2M Hill Plateau Remediation DOE RL

## B2L247

## GC/MS Volatiles

	GC/PIS VOIACITES			
Lot-Sample #: F2D170442-012	Work Order #: MR2T	T1AC	Matrix: V	NATER
MASS SPECTROMETER/DATA SYSTEM	(MSDS) TENTATIVELY	IDENTIFIED	COMPOUNDS	
PARAMETER			RETENTION TIME	UNITS

None

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## METHOD BLANK REPORT

#### GC/MS Volatiles

Client Lot #...: SL1265 Work Order #...: MR2J91AA Matrix..... WATER

**MB Lot-Sample #:** F2D170000-089

Prep Date...: 04/17/12

Analysis Date..: 04/17/12

Prep Batch #...: 2108089

Dilution Factor: 1

		REPORTING		
PARAMETER	RESULT	LIMIT	UNITS	METHOD
1,1-Dichloroethene	ND	1.0	ug/L	SW846 8260B
Ethylbenzene	ND	1.0	ug/L	SW846 8260B
1,4-Dioxane	ND	80	ug/L	SW846 8260B
Vinyl chloride	ND	2.0	ug/L	SW846 8260B
Acetone	ND	2.0	ug/L	SW846 8260B
Methylene chloride	ND	1.0	ug/L	SW846 8260B
Carbon disulfide	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	1.0	ug/L	SW846 8260B
2-Butanone	ND	5.0	ug/L	SW846 8260B
Chloroform	ND	1.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
Propionitrile	ND	5.0	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	1.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	1.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	1.0	ug/L	SW846 8260B
Benzene	ND	1.0	ug/L	SW846 8260B
Trichloroethene	ND	1.0	ug/L	SW846 8260B
4-Methyl-2-pentanone	ND	5.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	1.0	ug/L	SW846 8260B
Tetrachloroethene	ND	1.0	ug/L	SW846 8260B
Tetrahydrofuran	ND	10	ug/L	SW846 8260B
Xylenes (total)	ND	3.0	ug/L	SW846 8260B
1,4-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1-Butanol	ND	40	ug/L	SW846 8260B
Toluene	ND	1.0	ug/L	SW846 8260B
	PERCENT	RECOVERY		
SURROGATE	RECOVERY	LIMITS		
Toluene-d8	101	(85 - 120		
Dibromofluoromethane	105	(85 - 118		
1,2-Dichloroethane-d4	104	(80 - 119)	)	
4-Bromofluorobenzene	98	(84 - 115	)	

## NOTE(S):

 ${\bf Calculations} \ {\bf are} \ {\bf performed} \ {\bf before} \ {\bf rounding} \ {\bf to} \ {\bf avoid} \ {\bf round-off} \ {\bf errors} \ {\bf in} \ {\bf calculated} \ {\bf results}.$ 

## Method Blank Report

GC/MS Volatiles

Lot-Sample #: F2D170000-089 B W	Work Order #: MR2J91AA	Matrix: WATER
MASS SPECTROMETER/DATA SYSTEM (M	MSDS) TENTATIVELY IDENTIFIED	COMPOUNDS
PARAMETER	The second secon	RETENTION TIME UNITS

None

#### METHOD BLANK REPORT

#### GC/MS Volatiles

Client Lot #...: SL1265 Work Order #...: MR3ER1AA Matrix..... WATER

MB Lot-Sample #: F2D180000-084

Prep Date...: 04/18/12

Analysis Date..: 04/18/12

Prep Batch #...: 2109084

Dilution Factor: 1

RE	POF	ΚT.	TN	G

		KEPOKII.	ING			
PARAMETER	RESULT	LIMIT	UNITS	METHOD		
Acrolein	ND	10	ug/L	SW846 8260B		
Bromodichloromethane	ND	1.0	ug/L	SW846 8260B		
Bromoform	ND	1.0	ug/L	SW846 8260B		
Bromomethane	ND	2.0	ug/L	SW846 8260B		
Chlorobenzene	ND	1.0	ug/L	SW846 8260B		
Chloroprene	ND	1.0	ug/L	SW846 8260B		
Dibromochloromethane	ND	1.0	ug/L	SW846 8260B		
1,2-Dibromo-3-chloro-	ND	1.0	ug/L	SW846 8260B		
propane						
Chloroethane	ND	2.0	ug/L	SW846 8260B		
Chloromethane	ND	2.0	ug/L	SW846 8260B		
Allyl chloride	ND	2.0	ug/L	SW846 8260B		
1,2-Dibromoethane	ND	1.0	ug/L	SW846 8260B		
Dibromomethane	ND	1.0	ug/L	SW846 8260B		
trans-1,4-Dichloro-	ND	2.0	ug/L	SW846 8260B		
2-butene						
Dichlorodifluoromethane	ND	2.0	ug/L	SW846 8260B		
1,1-Dichloroethene	ND	1.0	ug/L	SW846 8260B		
1,2-Dichloroethene	ND	2.0	ug/L	SW846 8260B		
(total)						
1,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B		
cis-1,3-Dichloropropene	ND	1.0	ug/L	SW846 8260B		
trans-1,3-Dichloropropene	ND	1.0	ug/L	SW846 8260B		
1,4-Dioxane	ND	20	ug/L	SW846 8260B		
Ethylbenzene	ND	1.0	ug/L	SW846 8260B		
Ethyl methacrylate	ND	1.0	ug/L	SW846 8260B		
Trichlorofluoromethane	ND	1.0	ug/L	SW846 8260B		
2-Hexanone	ND	5.0	ug/L	SW846 8260B		
Iodomethane	ND	2.0	ug/L	SW846 8260B		
Isobutanol	ND	80	ug/L	SW846 8260B		
Methacrylonitrile	ND	5.0	ug/L	SW846 8260B		
Methyl methacrylate	ND	1.0	ug/L	SW846 8260B		
Styrene	ND	1.0	ug/L	SW846 8260B		
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B		
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B		
1,2,3-Trichloropropane	ND	1.0	ug/L	SW846 8260B		
Vinyl acetate	ND	2.0	ug/L	SW846 8260B		
Acrylonitrile	ND	10	ug/L	SW846 8260B		
Acetonitrile	ND	5.0	ug/L	SW846 8260B		
Vinyl chloride	ND	2.0	ug/L	SW846 8260B		
Acetone	ND	2.0	ug/L	SW846 8260B		

## METHOD BLANK REPORT

## GC/MS Volatiles

Client Lot #: SL1265	Work Order	Work Order #: MR3ER1AA		Matrix WATER		
		REPORTII	NG			
PARAMETER	RESULT	LIMIT	UNITS	METHOD		
Methylene chloride	ND	1.0	ug/L	SW846 8260B		
Carbon disulfide	ND	1.0	ug/L	SW846 8260B		
1,1-Dichloroethane	ND	1.0	ug/L	SW846 8260B		
2-Butanone	ND	5.0	ug/L	SW846 8260B		
Chloroform	ND	1.0	ug/L	SW846 8260B		
cis-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B		
Propionitrile	ND	5.0	ug/L	SW846 8260B		
trans-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B		
1,1,1-Trichloroethane	ND	1.0	ug/L	SW846 8260B		
Carbon tetrachloride	ND	1.0	ug/L	SW846 8260B		
1,2-Dichloroethane	ND	1.0	ug/L	SW846 8260B		
Benzene	ND	1.0	ug/L	SW846 8260B		
Trichloroethene	ND	1.0	ug/L	SW846 8260B		
4-Methyl-2-pentanone	ND	5.0	ug/L	SW846 8260B		
1,1,2-Trichloroethane	ND	1.0	ug/L	SW846 8260B		
Tetrachloroethene	ND	1.0	ug/L	SW846 8260B		
Tetrahydrofuran	ND	10	ug/L	SW846 8260B		
Xylenes (total)	ND	3.0	ug/L	SW846 8260B		
1,4-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B		
1-Butanol	ND	40	ug/L	SW846 8260B		
Toluene	ND	1.0	ug/L	SW846 8260B		
	PERCENT	RECOVER	Y			
SURROGATE	RECOVERY	LIMITS				
Toluene-d8	99	(85 - 12	20)			
Dibromofluoromethane	106	(85 - 13	18)			
1,2-Dichloroethane-d4	105	(80 - 13	19)			
4-Bromofluorobenzene	89	(84 - 1)	15)			

Calculations are performed before rounding to avoid round-off errors in calculated results.

NOTE(S):

ug/L

## CH2M Hill Plateau Remediation DOE RL

## Method Blank Report

GC/MS Volatiles

	00/110 1014011			
Lot-Sample #: F2D180000-084 B Wor	k Order #: MR	3ER1AA	Matrix:	WATER
MASS SPECTROMETER/DATA SYSTEM (MSD	S) TENTATIVEL	Y IDENTIFIED	COMPOUNDS	
PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS

None

#### GC/MS Volatiles

Client Lot #...: SL1265 Work Order #...: MR2J91AC Matrix.....: WATER

LCS Lot-Sample#: F2D170000-089

Prep Date....: 04/17/12 Analysis Date..: 04/17/12

Prep Batch #...: 2108089

Dilution Factor: 1

4-Bromofluorobenzene

	SPIKE	MEASURED		PERCENT	
PARAMETER	AMOUNT	AMOUNT	UNITS	RECOVERY	METHOD
1,4-Dioxane	200	146	ug/L	73	SW846 8260B
1,1-Dichloroethene	10.0	10.6	ug/L	106	SW846 8260B
Ethylbenzene	10.0	9.81	ug/L	98	SW846 8260B
Vinyl chloride	10.0	8.88	ug/L	89	SW846 8260B
Acetone	10.0	9.05	ug/L	90	SW846 8260B
Methylene chloride	10.0	9.86	ug/L	99	SW846 8260B
Carbon disulfide	10.0	11.4	ug/L	114	SW846 8260B
1,1-Dichloroethane	10.0	9.54	ug/L	95	SW846 8260B
2-Butanone	10.0	9.39	ug/L	94	SW846 8260B
Chloroform	10.0	9.71	ug/L	97	SW846 8260B
cis-1,2-Dichloroethene	10.0	9.98	ug/L	100	SW846 8260B
Propionitrile	50.0	43.5	ug/L	87	SW846 8260B
trans-1,2-Dichloroethene	10.0	10.1	ug/L	101	SW846 8260B
1,1,1-Trichloroethane	10.0	10.4	ug/L	104	SW846 8260B
Carbon tetrachloride	10.0	10.8	ug/L	108	SW846 8260B
1,2-Dichloroethane	10.0	9.36	ug/L	94	SW846 8260B
Benzene	10.0	9.63	ug/L	96	SW846 8260B
Trichloroethene	10.0	9.88	ug/L	99	SW846 8260B
4-Methyl-2-pentanone	10.0	9.15	ug/L	91	SW846 8260B
1,1,2-Trichloroethane	10.0	9.18	ug/L	92	SW846 8260B
Tetrachloroethene	10.0	10.6	ug/L	106	SW846 8260B
Tetrahydrofuran	50.0	39.9	ug/L	80	SW846 8260B
1,4-Dichlorobenzene	10.0	9.80	ug/L	98	SW846 8260B
1-Butanol	100	74.8	ug/L	75	SW846 8260B
Toluene	10.0	10.1	ug/L	101	SW846 8260B
		PERCENT	RECOVERY		
SURROGATE		RECOVERY	LIMITS	2	
Toluene-d8		103	(88 - 120)		
Dibromofluoromethane		108	(87 - 115)		
1,2-Dichloroethane-d4		97	(81 - 117)		
4 - 61		0.1	101 1171		

(Continued on next page)

91

(84 - 117)

GC/MS Volatiles

Client Lot #...: SL1265 Work Order #...: MR2J91AC Matrix.....: WATER

LCS Lot-Sample#: F2D170000-089

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

**Bold print denotes control parameters** 

#### GC/MS Volatiles

Client Lot #...: SL1265 Work Order #...: MR3ER1AC Matrix..... WATER

LCS Lot-Sample#: F2D180000-084

Prep Batch #...: 2109084

Dilution Factor: 1

	SPIKE	MEASURED		PERCENT	
PARAMETER	AMOUNT	AMOUNT	UNITS	RECOVERY	METHOD
cis-1,3-Dichloropropene	10.0	10.9	ug/L	109	SW846 8260B
Dibromochloromethane	10.0	11.3	ug/L	113	SW846 8260B
Chloromethane	10.0	9.85	ug/L	98	SW846 8260B
Bromomethane	10.0	12.4	ug/L	124	SW846 8260B
Chloroethane	10.0	9.27	ug/L	93	SW846 8260B
1,1-Dichloroethene	10.0	10.3	ug/L	103	SW846 8260B
1,2-Dichloroethene	20.0	19.7	ug/L	98	SW846 8260B
(total)					
1,2-Dichloropropane	10.0	9.56	ug/L	96	SW846 8260B
Bromodichloromethane	10.0	10.0	ug/L	100	SW846 8260B
trans-1,3-Dichloropropene	10.0	10.1	ug/L	101	SW846 8260B
2-Hexanone	10.0	8.96	ug/L	90	SW846 8260B
Chlorobenzene	10.0	8.97	ug/L	90	SW846 8260B
Bromoform	10.0	9.22	ug/L	92	SW846 8260B
Ethylbenzene	10.0	9.38	ug/L	94	SW846 8260B
Styrene	10.0	10.2	ug/L	102	SW846 8260B
1,1,2,2-Tetrachloroethane	10.0	8.21	ug/L	82	SW846 8260B
Allyl chloride	10.0	10.2	ug/L	102	SW846 8260B
1,2-Dibromo-3-	10.0	10.3	ug/L	103	SW846 8260B
chloropropane (DBCP)					
1,2-Dibromoethane	10.0	9.53	ug/L	95	SW846 8260B
trans-1,4-Dichloro-	10.0	10.0	ug/L	100	SW846 8260B
2-butene					
Dichlorodifluoromethane	10.0	7.16	ug/L	72	SW846 8260B
(Freon 12)					
Ethyl methacrylate	10.0	7.89	ug/L	79	SW846 8260B
Methyl methacrylate	10.0	7.59	ug/L	76	SW846 8260B
1,1,1,2-Tetrachloroethane	10.0	10.8	ug/L	108	SW846 8260B
Trichlorofluoromethane	10.0	10.1	ug/L	101	SW846 8260B
Acetonitrile	50.0	53.4	ug/L	107	SW846 8260B
Iodomethane	10.0	9.06	ug/L	91	SW846 8260B
Vinyl acetate	10.0	8.59	ug/L	86	SW846 8260B
Acrolein	50.0	45.1	ug/L	90	SW846 8260B
Acrylonitrile	50.0	54.3	ug/L	109	SW846 8260B

## GC/MS Volatiles

Client Lot #...: SL1265 Work Order #...: MR3ER1AC Matrix.....: WATER

LCS Lot-Sample#: F2D180000-084

	SPIKE	MEASURED		PERCENT	
PARAMETER	AMOUNT	AMOUNT	UNITS	RECOVERY	METHOD
Isobutanol	200	176	ug/L	88	SW846 8260B
Methacrylonitrile	50.0	46.6	ug/L	93	SW846 8260B
1,4-Dioxane	200	151	ug/L	76	SW846 8260B
Chloroprene	10.0	9.05	ug/L	90	SW846 8260B
Dibromomethane	10.0	9.78	ug/L	98	SW846 8260B
1,2,3-Trichloropropane	10.0	8.37	ug/L	84	SW846 8260B
Vinyl chloride	10.0	9.00	ug/L	90	SW846 8260B
Acetone	10.0	9.65	ug/L	97	SW846 8260B
Methylene chloride	10.0	9.50	ug/L	95	SW846 8260B
Carbon disulfide	10.0	11.0	ug/L	110	SW846 8260B
1,1-Dichloroethane	10.0	9.55	ug/L	96	SW846 8260B
2-Butanone	10.0	10.2	ug/L	102	SW846 8260B
Chloroform	10.0	9.85	ug/L	98	SW846 8260B
cis-1,2-Dichloroethene	10.0	9.89	ug/L	99	SW846 8260B
Propionitrile	50.0	48.1	ug/L	96	SW846 8260B
trans-1,2-Dichloroethene	10.0	9.77	ug/L	98	SW846 8260B
1,1,1-Trichloroethane	10.0	10.6	ug/L	106	SW846 8260B
Carbon tetrachloride	10.0	11.0	ug/L	110	SW846 8260B
1,2-Dichloroethane	10.0	9.95	ug/L	100	SW846 8260B
Benzene	10.0	9.54	ug/L	95	SW846 8260B
Trichloroethene	10.0	9.82	ug/L	98	SW846 8260B
4-Methyl-2-pentanone	10.0	10.6	ug/L	106	SW846 8260B
1,1,2-Trichloroethane	10.0	9.00	ug/L	90	SW846 8260B
Tetrachloroethene	10.0	11.3	ug/L	113	SW846 8260B
Tetrahydrofuran	50.0	46.0	ug/L	92	SW846 8260B
1,4-Dichlorobenzene	10.0	9.80	ug/L	98	SW846 8260B
1-Butanol	100	91.2	ug/L	91	SW846 8260B
Toluene	10.0	9.49	ug/L	95	SW846 8260B
		PERCENT	RECOVERY		
SURROGATE		RECOVERY	LIMITS	=	
Toluene-d8		99	(88 - 120)		
Dibromofluoromethane		113	(87 - 115)		
1,2-Dichloroethane-d4		106	(81 - 117)		
4-Bromofluorobenzene		87	(84 - 117)		

GC/MS Volatiles

Client Lot #...: SL1265 Work Order #...: MR3ER1AC Matrix.....: WATER

LCS Lot-Sample#: F2D180000-084

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

**Bold print denotes control parameters** 

#### GC/MS Volatiles

Client Lot #...: SL1265 Work Order #...: MR0F61AC-MS Matrix.....: WATER

MS Lot-Sample #: F2D120464-001 MR0F61AD-MSD

 Date Sampled...:
 04/10/12
 Date Received...:
 04/12/12

 Prep Date.....:
 04/17/12
 Analysis Date...:
 04/17/12

Prep Batch #...: 2108089

Dilution Factor: 1

	SAMPLE	SPIKE	MEASRD		PERCNT		
PARAMETER	AMOUNT	AMT	AMOUNT	UNITS	RECVRY	RPD	METHOD
1,1-Dichloroethene	ND	10.0	10.5	ug/L	105		SW846 8260B
	ND	10.0	9.87	ug/L	99	5.9	SW846 8260B
Ethylbenzene	ND	10.0	10.1	ug/L	101		SW846 8260B
	ND	10.0	9.57	ug/L	96	5.7	SW846 8260B
1,4-Dioxane	ND	200	222	ug/L	111		SW846 8260B
	ND	200	153	ug/L	77	37	SW846 8260B
Vinyl chloride	ND	10.0	8.72	ug/L	87		SW846 8260B
	ND	10.0	8.46	ug/L	85	2.9	SW846 8260B
Acetone	ND	10.0	9.53	ug/L	95		SW846 8260B
	ND	10.0	9.14	ug/L	91	4.2	SW846 8260B
Methylene chloride	0.34	10.0	11.0	ug/L	106		SW846 8260B
	0.34	10.0	10.0	ug/L	97	8.8	SW846 8260B
Carbon disulfide	ND	10.0	11.9	ug/L	119		SW846 8260B
	ND	10.0	10.9	ug/L	109	8.5	SW846 8260B
1,1-Dichloroethane	ND	10.0	10.2	ug/L	102		SW846 8260B
	ND	10.0	9.51	ug/L	95	7.4	SW846 8260B
2-Butanone	ND	10.0	10.3	ug/L	103		SW846 8260B
	ND	10.0	10.0	ug/L	100	2.6	SW846 8260B
Chloroform	ND	10.0	10.5	ug/L	105		SW846 8260B
	ND	10.0	9.75	ug/L	98	7.1	SW846 8260B
cis-1,2-Dichloroethene	ND	10.0	10.4	ug/L	104		SW846 8260B
	ND	10.0	9.78	ug/L	98	6.5	SW846 8260B
Propionitrile	ND	50.0	49.8	ug/L	100		SW846 8260B
	ND	50.0	45.6	ug/L	91	8.8	SW846 8260B
trans-1,2-Dichloroethene	ND	10.0	10.4	ug/L	104		SW846 8260B
	ND	10.0	9.85	ug/L	99	5.6	SW846 8260B
1,1,1-Trichloroethane	ND	10.0	10.6	ug/L	106		SW846 8260B
	ND	10.0	9.89	ug/L	99	6.5	SW846 8260B
Carbon tetrachloride	ND	10.0	10.9	ug/L	109		SW846 8260B
	ND	10.0	10.2	ug/L	102	7.0	SW846 8260B
1,2-Dichloroethane	ND	10.0	10.0	ug/L	100		SW846 8260B
	ND	10.0	9.65	ug/L	96	4.0	SW846 8260B
Benzene	ND	10.0	10.2	ug/L	102		SW846 8260B
	ND	10.0	9.66	ug/L	97	5.2	SW846 8260B
Trichloroethene	ND	10.0	10.1	ug/L	101	303 503	SW846 8260B
	ND	10.0	9.68	ug/L	97	4.1	SW846 8260B
4-Methyl-2-pentanone	ND	10.0	10.8	ug/L	108		SW846 8260B
	ND	10.0	9.91	ug/L	99	8.9	SW846 8260B
1,1,2-Trichloroethane	ND	10.0	10.0	ug/L	100		SW846 8260B
	ND	10.0	9.72	ug/L	97	2.8	SW846 8260B

#### GC/MS Volatiles

Client Lot #...: SL1265 Work Order #...: MR0F61AC-MS Matrix...... WATER

MS Lot-Sample #: F2D120464-001

MR0F61AD-MSD

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS		PERCNT RECVRY	RPD_	METHOI	)
Tetrachloroethene	ND	10.0	9.68	ug/L		97		SW846	8260B
	ND	10.0	9.59	ug/L		96	0.85	SW846	8260B
Tetrahydrofuran	ND	50.0	50.3	ug/L		101		SW846	
	ND	50.0	46.6	ug/L		93	7.5	SW846	
1,4-Dichlorobenzene	ND	10.0	10.4	ug/L		104		SW846	
	ND	10.0	9.81	ug/L		98	5.9	SW846	8260B
1-Butanol	ND	100	89.3	ug/L		89		SW846	8260B
	ND	100	79.9	ug/L		80	11	SW846	8260B
Toluene	ND	10.0	10.3	ug/L		103		SW846	8260B
	ND	10.0	9.69	ug/L		97	6.2	SW846	8260B
			ERCENT			COVERY			
SURROGATE		_	ECOVERY			1ITS	=		
Toluene-d8		10	)5			- 120			
		10	)2		(85	- 120	)		
Dibromofluoromethane		11	L2		(85	5 - 118	)		
		10	9		(85	5 - 118	)		
1,2-Dichloroethane-d4		10	8		(80	- 119	)		
		10	7		(80	- 119	)		
4-Bromofluorobenzene		94	1			1 - 115			
		94	1			- 115			
						-			

## NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

SDG #SL1265

#### GC/MS Volatiles

Client Lot #...: SL1265 Work Order #...: MR0FX1AK-MS Matrix.....: WATER

MS Lot-Sample #: F2D120462-001 MR0FX1AL-MSD

 Date Sampled...:
 04/10/12
 Date Received...
 04/12/12

 Prep Date.....:
 04/18/12
 Analysis Date...
 04/18/12

Prep Batch #...: 2109084

Dilution Factor: 1

	SAMPLE	SPIKE	MEASRD		PERCNT			
PARAMETER	AMOUNT	AMT	AMOUNT	UNITS	RECVRY	RPD_	METHOI	
cis-1,3-Dichloropropene	ND	10.0	10.7	ug/L	107			8260B
	ND	10.0	10.8	ug/L	108	1.3	SW846	
Chloromethane	ND	10.0	9.85	ug/L	98		SW846	
	ND	10.0	9.48	ug/L	95	3.8	SW846	
Bromomethane	ND	10.0	11.9	ug/L	119		SW846	
	ND	10.0	11.7	ug/L	117	1.2	SW846	
Chloroethane	ND	10.0	9.63	ug/L	96		SW846	
	ND	10.0	9.21	ug/L	92	4.5	SW846	
1,1-Dichloroethene	ND	10.0	10.4	ug/L	104		SW846	
	ND	10.0	10.1	ug/L	101	2.8	SW846	
1,2-Dichloroethene	ND	20.0	19.5	ug/L	98		SW846	8260B
(total)								
	ND	20.0	19.2	ug/L	96	1.4	SW846	8260B
1,2-Dichloropropane	ND	10.0	9.54	ug/L	95			8260B
	ND	10.0	9.59	ug/L	96	0.49	SW846	
Bromodichloromethane	ND	10.0	9.75	ug/L	98		SW846	
	ND	10.0	9.89	ug/L	99	1.4	SW846	
trans-1,3-Dichloropropene	ND	10.0	9.81	ug/L	98		SW846	
	ND	10.0	10.1	ug/L	101	3.3	SW846	
2-Hexanone	ND	10.0	8.61	ug/L	86		SW846	8260B
	ND	10.0	9.10	ug/L	91	5.4	SW846	8260B
Chlorobenzene	ND	10.0	9.04	ug/L	90		SW846	8260B
	ND	10.0	8.95	ug/L	89	1.0	SW846	8260B
Bromoform	ND	10.0	8.85	ug/L	88		SW846	8260B
	ND	10.0	9.07	ug/L	91	2.4	SW846	8260B
Ethylbenzene	ND	10.0	9.42	ug/L	94		SW846	8260B
	ND	10.0	9.28	ug/L	93	1.6	SW846	8260B
Styrene	ND	10.0	10.3	ug/L	103		SW846	8260B
	ND	10.0	10.2	ug/L	102	0.78	SW846	8260B
1,1,2,2-Tetrachloroethane	ND	10.0	8.32	ug/L	83		SW846	8260B
	ND	10.0	8.44	ug/L	84	1.4	SW846	8260B
Dibromochloromethane	ND	10.0	11.0	ug/L	110		SW846	8260B
	ND	10.0	11.0	ug/L	110	0.45	SW846	8260B
Allyl chloride	ND	10.0	9.72	ug/L	97		SW846	8260B
	ND	10.0	9.65	ug/L	97	0.69	SW846	8260B
	ND	10.0	8.92	ug/L	89	8.7	SW846	8260B
				-				
1,2-Dibromoethane	ND	10.0	9.63	ug/L	96		SW846	8260B
	ND	10.0	9.70	ug/L	97	0.77	SW846	8260B
				-				

## GC/MS Volatiles

Client Lot #...: SL1265 Work Order #...: MR0FX1AK-MS Matrix...... WATER

MS Lot-Sample #: F2D120462-001 MR0FX1AL-MSD

DADAMETER	SAMPLE	SPIKE	MEASRD		PERCNT	D D D	MERMOR
PARAMETER	AMOUNT	AMT	AMOUNT	UNITS	RECVRY	RPD_	METHOD
trans-1,4-Dichloro- 2-butene	ND	10.0	10.2	ug/L	102		SW846 8260B
	ND	10.0	9.47	ug/L	95	7.2	SW846 8260B
Dichlorodifluoromethane	ND	10.0	7.02	ng/T	70		SW846 8260B
(Freon 12)	ND	10.0	/ <b>.</b> UZ	ug/L	70		SW040 0200B
	ND	10.0	6.88	ug/L	69	2.0	SW846 8260B
Ethyl methacrylate	ND	10.0	7.68	ug/L	77		SW846 8260B
	ND	10.0	7.74	ug/L	77	0.64	SW846 8260B
Methyl methacrylate	ND	10.0	7.92	ug/L	79		SW846 8260B
	ND	10.0	8.04	ug/L	80	1.6	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	10.0	10.5	ug/L	105		SW846 8260B
	ND	10.0	10.1	ug/L	101	4.0	SW846 8260B
Trichlorofluoromethane	ND	10.0	10.2	ug/L	102		SW846 8260B
	ND	10.0	10.0	ug/L	100	1.9	SW846 8260B
Acetonitrile	ND	50.0	52.1	ug/L	104		SW846 8260B
	ND	50.0	52.8	ug/L	106	1.4	SW846 8260B
Iodomethane	ND	10.0	8.56	ug/L	86		SW846 8260B
	ND	10.0	8.41	ug/L	84	1.7	SW846 8260B
Vinyl acetate	ND	10.0	8.31	ug/L	83		SW846 8260B
	ND	10.0	8.72	ug/L	87	4.8	SW846 8260B
Acrolein	ND	50.0	46.1	ug/L	92		SW846 8260B
	ND	50.0	45.0	ug/L	90	2.4	SW846 8260B
Isobutanol	ND	200	174	ug/L	87		SW846 8260B
	ND	200	175	ug/L	88	0.63	SW846 8260B
Methacrylonitrile	ND	50.0	46.6	ug/L	93		SW846 8260B
4	ND	50.0	47.0	ug/L	94	0.85	SW846 8260B
1,4-Dioxane	ND	200	196	ug/L	98		SW846 8260B
•	ND	200	133	ug/L	66	38	SW846 8260B
Chloroprene	ND	10.0	8.74	ug/L	87		SW846 8260B
**************************************	ND	10.0	8.81	ug/L	88	0.86	SW846 8260B
Dibromomethane	ND	10.0	10.0	ug/L	100		SW846 8260B
	ND	10.0	9.99	ug/L	100	0.26	SW846 8260B
1,2,3-Trichloropropane	ND	10.0	8.60	ug/L	86		SW846 8260B
	ND	10.0	8.51	ug/L	85	0.99	SW846 8260B
Acrylonitrile	No. of the last of	50.0	52.0	ug/L	104		SW846 8260B
4		50.0	51.8	ug/L	104	0.30	SW846 8260B
Vinyl chloride	ND	10.0	8.41	ug/L	84		SW846 8260B
1	ND	10.0	8.50	ug/L	85	1.1	SW846 8260B
Acetone	ND	10.0	8.59	ug/L	86		SW846 8260B
	ND	10.0	8.75	ug/L	87	1.9	SW846 8260B
	-41	10.0	0. "0	~9/ L	<b>U</b> "	±• J	J 10 0200D

## GC/MS Volatiles

Client Lot #...: SL1265 Work Order #...: MR0FX1AK-MS Matrix.....: WATER

MS Lot-Sample #: F2D120462-001 MR0FX1AL-MSD

	SAMPLE	SPIKE	MEASRD		PERCNT			
PARAMETER	AMOUNT	AMT	AMOUNT	UNITS	RECVRY	RPD_	METHOI	)
Methylene chloride	3.3	10.0	10.3	ug/L	70 T		SW846	8260B
	3.3	10.0	11.4	ug/L	81	10	SW846	8260B
Carbon disulfide	ND	10.0	10.9	ug/L	109		SW846	8260B
	ND	10.0	10.6	ug/L	106	2.8	SW846	8260B
1,1-Dichloroethane	ND	10.0	9.33	ug/L	93		SW846	8260B
	ND	10.0	9.24	ug/L	92	0.98	SW846	8260B
2-Butanone	ND	10.0	9.99	ug/L	100		SW846	8260B
	ND	10.0	10.1	ug/L	101	1.5	SW846	8260B
Chloroform	ND	10.0	9.64	ug/L	96		SW846	8260B
	ND	10.0	9.64	ug/L	96	0.03	SW846	8260B
cis-1,2-Dichloroethene	ND	10.0	9.77	ug/L	98		SW846	8260B
	ND	10.0	9.70	ug/L	97	0.69	SW846	8260B
Propionitrile	ND	50.0	46.9	ug/L	94		SW846	8260B
	ND	50.0	47.7	ug/L	95	1.6	SW846	8260B
trans-1,2-Dichloroethene	ND	10.0	9.74	ug/L	97		SW846	8260B
	ND	10.0	9.54	ug/L	95	2.1	SW846	8260B
1,1,1-Trichloroethane	ND	10.0	10.3	ug/L	103		SW846	8260B
	ND	10.0	10.2	ug/L	102	1.4	SW846	8260B
Carbon tetrachloride	ND	10.0	10.8	ug/L	108		SW846	8260B
	ND	10.0	10.6	ug/L	106	2.1	SW846	8260B
1,2-Dichloroethane	ND	10.0	9.81	ug/L	98		SW846	8260B
	ND	10.0	9.92	ug/L	99	1.1	SW846	8260B
Benzene	ND	10.0	9.52	ug/L	95		SW846	8260B
	ND	10.0	9.44	ug/L	94	0.88	SW846	8260B
Trichloroethene	ND	10.0	9.75	ug/L	98		SW846	8260B
	ND	10.0	9.88	ug/L	99	1.3	SW846	8260B
4-Methyl-2-pentanone	ND	10.0	10.2	ug/L	102		SW846	8260B
	ND	10.0	10.1	ug/L	101	1.3	SW846	8260B
1,1,2-Trichloroethane	ND	10.0	9.31	ug/L	93		SW846	8260B
	ND	10.0	9.46	ug/L	95	1.6	SW846	8260B
Tetrachloroethene	ND	10.0	10.5	ug/L	105		SW846	8260B
	ND	10.0	10.5	ug/L	105	0.09	SW846	8260B
Tetrahydrofuran	ND	50.0	46.8	ug/L	94		SW846	8260B
	ND	50.0	46.3	ug/L	93	0.98	SW846	8260B
1,4-Dichlorobenzene	ND	10.0	9.66	ug/L	97			8260B
	ND	10.0	9.69	ug/L	97	0.38	SW846	8260B
1-Butanol	ND	100	80.9	ug/L	81		SW846	8260B
	ND	100	81.4	ug/L	81	0.69	SW846	8260B
Toluene	ND	10.0	9.61	ug/L	96		SW846	8260B
	ND	10.0	9.50	ug/L	95	1.2	SW846	8260B

#### GC/MS Volatiles

Client Lot #...: SL1265 Work Order #...: MR0FX1AK-MS Matrix.....: WATER

MS Lot-Sample #: F2D120462-001 MR0FX1AL-MSD

	PERCENT	RECOVERY
SURROGATE	RECOVERY	LIMITS
Toluene-d8	98	(85 - 120)
	99	(85 - 120)
Dibromofluoromethane	108	(85 - 118)
	111	(85 - 118)
1,2-Dichloroethane-d4	105	(80 - 119)
	108	(80 - 119)
4-Bromofluorobenzene	89	(84 - 115)
	94	(84 - 115)

## NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

SDG #SL1265 101 of 172

T Spike sample recovery is outside control limits.

# GC/MS SEMI-VOLATILES

SDG #SL1265 102 of 172

## Client Sample ID: B2KFF2

#### GC/MS Semivolatiles

Lot-Sample #...: F2D170439-001 Work Order #...: MR2R61AE Matrix..... WATER

Prep Batch #...: 2109120

Dilution Factor: 1 Method.....: SW846 8270C

		REPORTIN	IG	
PARAMETER	RESULT	LIMIT	UNITS	MDL
Hexachloropropene	ND	100	ug/L	1.0
N-Nitro-o-toluidine	ND	20	ug/L	1.0
3-Methylphenol &	ND	20	ug/L	2.0
4-Methylphenol				
Pyridine	ND	20	ug/L	2.0
N-Nitrosodimethylamine	ND	10	ug/L	2.0
2-Picoline	ND	20	ug/L	2.0
N-Nitrosomethylethylamine	ND	10	ug/L	1.0
Methyl methanesulfonate	ND	10	ug/L	1.0
Methyl parathion	ND	50	ug/L	1.0
N-Nitrosodiethylamine	ND	10	ug/L	1.1
Ethyl methanesulfonate	ND	10	ug/L	1.0
Phenol	ND	10	ug/L	2.0
Pentachloroethane	ND	50	ug/L	1.3
Aniline	ND	10	ug/L	1.3
bis(2-Chloroethyl)-	ND	10	ug/L	1.0
ether				
2-Chlorophenol	ND	10	ug/L	1.0
1,3-Dichlorobenzene	ND	10	ug/L	1.0
1,4-Dichlorobenzene	ND	10	ug/L	1.0
Benzyl alcohol	ND	10	ug/L	1.0
Hexachlorophene	ND	100	ug/L	10
1,2-Dichlorobenzene	ND	10	ug/L	1.0
2-Methylphenol	ND	10	ug/L	1.0
2,2'-oxybis	ND	10	ug/L	1.0
(1-Chloropropane)				
Acetophenone	ND	10	ug/L	1.1
4-Methylphenol	ND	10	ug/L	10
N-Nitrosopyrrolidine	ND	10	ug/L	1.0
N-Nitrosomorpholine	ND	10	ug/L	1.2
o-Toluidine	ND	20	ug/L	1.0
N-Nitrosodi-n-propyl-	ND	10	ug/L	1.0
amine				
Hexachloroethane	ND	10	ug/L	1.0
2-Methylnaphthalene	ND	10	ug/L	1.0
Nitrobenzene	ND	10	ug/L	1.1
N-Nitrosopiperidine	ND	10	ug/L	1.0
Isophorone	ND	10	ug/L	1.0
2-Nitrophenol	ND	10	ug/L	1.0

## Client Sample ID: B2KFF2

## GC/MS Semivolatiles

Lot-Sample #...: F2D170439-001 Work Order #...: MR2R61AE Matrix..... WATER

REPORTING	G	
PARAMETER RESULT LIMIT	UNITS	MDL
2,4-Dimethylphenol ND 10	ug/L	1.0
O,O,O-Triethylphosphoro- ND 50	ug/L	1.1
thioate	٠, ٠	
bis(2-Chloroethoxy) ND 10	ug/L	1.0
methane	5,	
alpha,alpha-Dimethylphenethyla ND 50	ug/L	22
mine	/T	1 1
2,4-Dichlorophenol ND 10	ug/L	1.1
1,2,4-Trichloro- ND 10	ug/L	1.0
benzene	17	1 0
Naphthalene ND 10	ug/L	1.0
2,6-Dichlorophenol ND 10	ug/L	1.0
4-Chloroaniline ND 10	ug/L	2.2
Hexachlorobutadiene ND 10	ug/L	1.0
p-Phenylene diamine ND 100	ug/L	1.0
4-Chloro-3-methylphenol ND 10	ug/L	1.0
Safrole ND 20	ug/L	1.0
1,2,4,5-Tetrachloro- ND 10	ug/L	1.0
benzene		
Hexachlorocyclopenta- ND 50 diene	ug/L	1.0
2,4,6-Trichloro- ND 10	ug/L	1.0
phenol		
2,4,5-Trichloro- ND 10	ug/L	1.0
phenol	-	
2-Chloronaphthalene ND 10	ug/L	1.0
Isosafrole ND 20	ug/L	1.3
2-Nitroaniline ND 50	ug/L	1.0
1,4-Naphthoquinone ND 50	ug/L	2.3
Dimethyl phthalate ND 10	ug/L	1.0
N-Nitrosodi-n-butylamine ND 10	ug/L	1.0
1,3-Dinitrobenzene ND 10	ug/L	1.0
Acenaphthylene ND 10	ug/L	1.0
2,6-Dinitrotoluene ND 10	ug/L	2.2
3-Nitroaniline ND 50	ug/L	1.0
Acenaphthene ND 10	ug/L	1.0
2,4-Dinitrophenol ND 50	ug/L	2.0
4-Nitrophenol ND 50	ug/L	2.0
Dibenzofuran ND 10	ug/L	1.0
Pentachlorobenzene ND 10	ug/L	1.0
2,4-Dinitrotoluene ND 10	ug/L	1.0
1-Naphthylamine ND 10	ug/L	1.2
2,3,4,6-Tetrachlorophenol ND 50	ug/L	1.2

## Client Sample ID: B2KFF2

## GC/MS Semivolatiles

Lot-Sample #...: F2D170439-001 Work Order #...: MR2R61AE Matrix..... WATER

		REPORTING		
PARAMETER	RESULT	LIMIT	UNITS	MDL
2-Naphthylamine	ND	10	ug/L	1.0
O,O-Diethyl-O-(2-pyrazinyl) ph	ND	50	ug/L	1.0
osphorothioate			J.	
Diethyl phthalate	ND	10	ug/L	1.0
Fluorene	ND	10	ug/L	1.0
4-Chlorophenyl phenyl ether	ND	10	ug/L	1.0
4-Nitroaniline	ND	50	ug/L	1.0
4,6-Dinitro-	ND	50	ug/L	1.0
2-methylphenol			49/ =	_ • •
Diphenylamine+N-Nitrosodipheny lamine	ND	10	ug/L	1.0
Azobenzene	ND	10	ug/L	1.0
Tetraethyldithiopyro-	ND	50	ug/L	1.0
phosphate			5 /	
1,3,5-Trinitrobenzene	ND	50	ug/L	1.2
Diallate	ND	20	ug/L	2.0
Phorate	ND	50	ug/L	1.0
4-Bromophenyl phenyl	ND	10	ug/L	1.0
ether			5 /	
Phenacetin	ND	20	ug/L	1.0
Dimethoate	ND	20	ug/L	1.0
Hexachlorobenzene	ND	10	ug/L	1.0
Pentachlorophenol	ND	50	ug/L	1.3
Pentachloronitrobenzene	ND	50	ug/L	1.0
4-Aminobiphenyl	ND	50	ug/L	1.0
Pronamide	ND	20	ug/L	1.0
Disulfoton	ND	50	ug/L	1.0
Phenanthrene	ND	10	ug/L	1.0
Anthracene	ND	10	ug/L	1.0
Carbazole	ND	10	ug/L	1.0
Dinoseb	ND	20	ug/L	2.0
4-Nitroquinoline- 1-oxide	ND	100	ug/L	5.0
Parathion	ND	50	ug/L	1.0
Methapyrilene	ND	50	ug/L	1.3
Fluoranthene	ND	10	ug/L	1.0
Isodrin	ND	10	ug/L	1.0
Pyrene	ND	10	ug/L	1.0
Aramite 1	ND	20	ug/L	20
Aramite 2	ND	20	ug/L	20
p-Dimethylaminoazobenzene	ND	20	ug/L	1.0
p-Chlorobenzilate	ND	10	ug/L	1.0

## Client Sample ID: B2KFF2

## GC/MS Semivolatiles

Lot-Sample #...: F2D170439-001 Work Order #...: MR2R61AE Matrix..... WATER

		REPORTIN	IG .	
PARAMETER	RESULT	LIMIT	UNITS	MDL
Famphur	ND	100	ug/L	1.7
Kepone	ND	100	ug/L	20
3,3'-Dimethylbenzidine	ND	50	ug/L	2.6
Butyl benzyl phthalate	ND	10	ug/L	1.0
2-Acetylaminofluorene	ND	100	ug/L	1.0
Benzo(a) anthracene	ND	10	ug/L	1.0
3,3'-Dichlorobenzidine	ND	50	ug/L	1.3
Chrysene	ND	10	ug/L	1.0
bis(2-Ethylhexyl)	ND	10	ug/L	1.0
phthalate				
Di-n-butyl phthalate	ND	10	ug/L	1.0
Di-n-octyl phthalate	ND	10	ug/L	1.0
7,12-Dimethylbenz(a)-	ND	20	ug/L	1.0
anthracene				
Benzo(b) fluoranthene	ND	10	ug/L	1.0
Benzo(k) fluoranthene	ND	10	ug/L	1.0
Benzo(a)pyrene	ND	10	ug/L	1.0
3-Methylcholanthrene	ND	20	ug/L	1.0
Indeno(1,2,3-cd)pyrene	ND	10	ug/L	1.0
Benzo(ghi)perylene	ND	10	ug/L	1.0
Dibenz(a,h)anthracene	ND	10	ug/L	1.0
Tributyl phosphate	ND	10	ug/L	1.0
	PERCENT	RECOVERY		
SURROGATE	RECOVERY	LIMITS		
2-Fluorophenol	46	(19 - 86	<del></del>	
Phenol-d5	29	(10 - 71		
Nitrobenzene-d5	76	(44 - 10		
2-Fluorobiphenyl	72	(44 - 99		
2,4,6-Tribromophenol	92	(43 - 11		
Terphenyl-d14	91	(45 - 13		
101711111111111111111111111111111111111	J =	(10 10	-/	

#### B2KFF2

## GC/MS Semivolatiles

Lot-Sample #: F2D170439-001 Work Order #: MR2R61AE Matrix: WATER

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

		ESTIMATED	RETENTION	
PARAMETER	CAS #	RESULT	TIME	UNITS
Unknown		8.3 J M	3.5208	ug/L
Unknown aldol condensate		150 J M	3.9969	ug/L
Unknown		4.3 J M	7.1151	ug/L
Benzoic acid, 2,4,6-trimethyl-	480-63-7	130 J M	9.7252	ug/L
NOTE(S):				

M: Result was measured against nearest internal standard assuming a response factor of 1.

Client Sample ID: B2KL30

#### GC/MS Semivolatiles

Lot-Sample #: Date Sampled: Prep Date: Prep Batch #:	04/16/12 04/20/12	Work Order #: Date Received: Analysis Date:	04/18/12	Matrix	:	WATER
Dilution Factor:		Method:	SW846 8270	С		
PARAMETER 1,4-Dioxane		RESULT ND	REPORTING LIMIT 10	UNITS ug/L	MDL 1.0	
SURROGATE 2-Fluorophenol		PERCENT RECOVERY 50	RECOVERY LIMITS (19 - 86 )			

(10 - 71)(44 - 100)

(44 - 99)

(43 - 115)

(45 - 131)

32

81

81

92

94

Phenol-d5

Nitrobenzene-d5

Terphenyl-d14

2-Fluorobiphenyl

2,4,6-Tribromophenol

## B2KL30

## GC/MS Semivolatiles

Lot-Sample #: F2D180412-001 Work Order #: MR3E31AC Matrix: WATER

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

			ESTIMATED		RETENTION		
PARAMETER	CAS	#	RE:	SULT		TIME	UNITS
Unknown			16	J	M	3.3976	ug/L
Unknown aldol condensate			16	J	M	3.9645	ug/L

# NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

# Client Sample ID: B2KL50

# GC/MS Semivolatiles

<pre>Lot-Sample #: F2D180412-002 Date Sampled: 04/16/12 Prep Date: 04/20/12 Prep Batch #: 2111079</pre>	Work Order #: Date Received: Analysis Date:	04/18/12	Matrix	X WATER
Dilution Factor: 1	Method:	SW846 8270	)C	
		REPORTING		
PARAMETER	RESULT	LIMIT	UNITS	MDL
1,4-Dioxane	ND	10	ug/L	1.0
	PERCENT	RECOVERY		
SURROGATE	RECOVERY	LIMITS		
2-Fluorophenol	49	(19 - 86)		
Phenol-d5	31	(10 - 71)		
Nitrobenzene-d5	81	(44 - 100)		
2-Fluorobiphenyl	82	(44 - 99)		
2,4,6-Tribromophenol	92	(43 - 115)		
Terphenyl-d14	93	(45 - 131)		

## B2KL50

## GC/MS Semivolatiles

Lot-Sample #: F2D180412-002 Work Order #: MR3E41AC Matrix: WATER

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

			ESTIMATED		F	RETENTION	
PARAMETER	CAS	#	RES	ULT	_ [	rime	UNITS
Unknown			17	J N	1 3	3.3978	ug/L
Unknown aldol condensate			16	J 1	1 3	3.9647	ug/L

# NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

# Client Sample ID: B2KL60

## GC/MS Semivolatiles

Lot-Sample #: F2D180412-003 Date Sampled: 04/16/12 Prep Date: 04/20/12 Prep Batch #: 2111079	Work Order #: Date Received: Analysis Date:	04/18/12	Matr	cix WATER
Dilution Factor: 1	Method	SW846 8270	)C	
		REPORTING		
PARAMETER	RESULT	LIMIT	UNITS	MDL
1,4-Dioxane	ND	10	ug/L	1.0
	PERCENT	RECOVERY		
SURROGATE	RECOVERY	LIMITS		
2-Fluorophenol	49	(19 - 86)		
Phenol-d5	31	(10 - 71)		
Nitrobenzene-d5	83	(44 - 100)		
2-Fluorobiphenyl	84	(44 - 99)		
2,4,6-Tribromophenol	93	(43 - 115)		

(45 - 131)

95

Terphenyl-d14

## B2KL60

## GC/MS Semivolatiles

Lot-Sample #: F2D180412-003 Work Order #: MR3E51AC Matrix: WATER

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

			ESTIMATED	RETENTION	I
PARAMETER	CAS	#	RESULT	TIME	UNITS
Unknown			7.8 J	4 3.4191	ug/L
Unknown aldol condensate			16 J I	1 3.9646	ug/L

# NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

Client Sample ID: B2KL70

## GC/MS Semivolatiles

Lot-Sample #: F2D180412-00 Date Sampled: 04/16/12 Prep Date: 04/20/12 Prep Batch #: 2111079	Work Order # Date Received Analysis Date	: 04/18/12	Matr	ix WATER
Dilution Factor: 1	Method	: SW846 8270	OC .	
		REPORTING		
PARAMETER	RESULT	LIMIT	UNITS	MDL
1,4-Dioxane	ND	10	ug/L	1.0
	PERCENT	RECOVERY		
SURROGATE	RECOVERY	LIMITS		
2-Fluorophenol	50	(19 - 86 )	_	
Phenol-d5	32	(10 - 71)		
Nitrobenzene-d5	83	(44 - 100)		
2-Fluorobiphenyl	83	(44 - 99)		

(43 - 115)

(45 - 131)

94

96

2,4,6-Tribromophenol

Terphenyl-d14

## B2KL70

## GC/MS Semivolatiles

Lot-Sample #: F2D180412-004 Work Order #: MR3E61AC Matrix: WATER

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

			ESTIMATED		RETENTION		
PARAMETER	CAS	#	RES	SULT		TIME	UNITS
Unknown			24	J	Μ	3.3869	ug/L
Unknown aldol condensate			14	J	M	3.9592	ug/L

# NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

# Client Sample ID: B2KL81

## GC/MS Semivolatiles

Lot-Sample #: F2D180412-005	Work Order #: MR3E71AC	Matrix WATER
Date Sampled: 04/16/12	Date Received: 04/18/12	
<pre>Prep Date: 04/20/12</pre>	Analysis Date: 04/25/12	
Prep Batch #: 2111079		
Dilution Factor: 1	Mothod • SW846 8270C	

Dilution Factor: 1 Method.....: SW846 82700

		REPORTIN	IG		
PARAMETER	RESULT	LIMIT	UNITS	MDL	
1,4-Dioxane	ND	10	ug/L	1.0	

	PERCENT	RECOVERY		
SURROGATE	RECOVERY	LIMITS		
2-Fluorophenol	51	(19 - 86 )		
Phenol-d5	32	(10 - 71)		
Nitrobenzene-d5	85	(44 - 100)		
2-Fluorobiphenyl	86	(44 - 99)		
2,4,6-Tribromophenol	94	(43 - 115)		
Terphenyl-d14	96	(45 - 131)		

## B2KL81

## GC/MS Semivolatiles

Lot-Sample #: F2D180412-005 Work Order #: MR3E71AC Matrix: WATER

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

			ESTIMATED		RETENTION		
PARAMETER	CAS	#	RE	SULT		TIME	UNITS
Unknown			42	J	Μ	3.3817	ug/L
Unknown aldol condensate			21	J	M	3.9647	ug/L

# NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

# Client Sample ID: B2KL82

## GC/MS Semivolatiles

Lot-Sample #: F2D18043	12-006 Work Order #	.: MR3FA1AC	Matr:	ix W	ATER
Date Sampled: 04/16/12	Date Received	.: 04/18/12			
Prep Date: 04/20/12	Analysis Date	.: 04/25/12			
Prep Batch #: 2111079					
Dilution Factor: 1	Method	.: SW846 8270	)C		
		REPORTING			
PARAMETER	RESULT	LIMIT	UNITS	MDL	
1,4-Dioxane	ND	10	ug/L	1.0	
	PERCENT	RECOVERY			
SURROGATE	RECOVERY	LIMITS	21		
2-Fluorophenol	49	(19 - 86)			
Phenol-d5	31	(10 - 71)			
Nitrobenzene-d5	80	(44 - 100)			
2-Fluorobiphenyl	82	(44 - 99)			
2,4,6-Tribromophenol	91	(43 - 115)			

(45 - 131)

94

Terphenyl-d14

## B2KL82

## GC/MS Semivolatiles

Lot-Sample #: F2D180412-006 Work Order #: MR3FA1AC Matrix: WATER

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATE RESULT	ED	RETENTION TIME UNITS		
Unknown	<u> </u>	31 J	M	3.3765	ug/L	
Unknown aldol condensate		15 J	M	3.9488	ug/L	
Unknown organic acid		7.5 J	M	15.924	ug/L	

 $<sup>\</sup>boldsymbol{M}$  : Result was measured against nearest internal standard assuming a response factor of 1.

## GC/MS Semivolatiles

Client Lot #...: SL1265 Work Order #...: MR3TT1AA Matrix.....: WATER

**MB** Lot-Sample #: F2D180000-120

Prep Date...: 04/18/12
Analysis Date..: 04/20/12
Prep Batch #...: 2109120

Dilution Factor: 1

		REPORTI	NG	
PARAMETER	RESULT	LIMIT	UNITS	METHOD
N-Nitro-o-toluidine	ND	20	ug/L	SW846 8270C
Hexachloropropene	ND	100	ug/L	SW846 8270C
3-Methylphenol &	ND	20	ug/L	SW846 8270C
4-Methylphenol				
Pyridine	ND	20	ug/L	SW846 8270C
N-Nitrosodimethylamine	ND	10	ug/L	SW846 8270C
2-Picoline	ND	20	ug/L	SW846 8270C
N-Nitrosomethylethylamine	ND	10	ug/L	SW846 8270C
N-Nitrosodiethylamine	ND	10	ug/L	SW846 8270C
Methyl methanesulfonate	ND	10	ug/L	SW846 8270C
Methyl parathion	ND	50	ug/L	SW846 8270C
Ethyl methanesulfonate	ND	10	ug/L	SW846 8270C
Phenol	ND	10	ug/L	SW846 8270C
Pentachloroethane	ND	50	ug/L	SW846 8270C
Aniline	ND	10	ug/L	SW846 8270C
bis(2-Chloroethyl)-	ND	10	ug/L	SW846 8270C
ether				
2-Chlorophenol	ND	10	ug/L	SW846 8270C
1,3-Dichlorobenzene	ND	10	ug/L	SW846 8270C
1,4-Dichlorobenzene	ND	10	ug/L	SW846 8270C
Benzyl alcohol	ND	10	ug/L	SW846 8270C
Hexachlorophene	ND	100	ug/L	SW846 8270C
1,2-Dichlorobenzene	ND	10	ug/L	SW846 8270C
2-Methylphenol	ND	10	ug/L	SW846 8270C
2,2'-oxybis	ND	10	ug/L	SW846 8270C
(1-Chloropropane)				
Acetophenone	ND	10	ug/L	SW846 8270C
4-Methylphenol	ND	10	ug/L	SW846 8270C
N-Nitrosopyrrolidine	ND	10	ug/L	SW846 8270C
N-Nitrosomorpholine	ND	10	ug/L	SW846 8270C
N-Nitrosodi-n-propyl-	ND	10	ug/L	SW846 8270C
amine				
o-Toluidine	ND	20	ug/L	SW846 8270C
Hexachloroethane	ND	10	ug/L	SW846 8270C
Nitrobenzene	ND	10	ug/L	SW846 8270C
2-Methylnaphthalene	ND	10	ug/L	SW846 8270C
N-Nitrosopiperidine	ND	10	ug/L	SW846 8270C
Isophorone	ND	10	ug/L	SW846 8270C
2-Nitrophenol	ND	10	ug/L	SW846 8270C
2,4-Dimethylphenol	ND	10	ug/L	SW846 8270C
O,O,O-Triethylphosphoro-	ND	50	ug/L	SW846 8270C

(Continued on next page)

thioate

# GC/MS Semivolatiles

Client Lot #: SL1265	Work Order #: MR3TT1AA	Matrix WATER
CIICIL HOU W DHIZOD	WOLK OLUCI W III() I I I I I I I I I I I I I I I I I	THE CITY OF STREET

No.   No.			REPORTII	NC	
Simple   S	PARAMETER	RESIILT			METHOD
methane         ug/L         SW846         8270C           2,4-Dichlorophenol         ND         10         ug/L         SW846         8270C           1,2,4-Trichlorobenze         ND         10         ug/L         SW846         8270C           benzene         ND         10         ug/L         SW846         8270C           Nphthalene         ND         10         ug/L         SW846         8270C           2,6-Dichlorophenol         ND         10         ug/L         SW846         8270C           4-Chloroaniline         ND         10         ug/L         SW846         8270C           benzene         ND         10         ug/L         SW846         8270C           benzene         ND         20         ug/L         SW846         8270C           benzene         Bexachlorocyclopenta         ND         10         ug/L         SW846         8270C           benzene         Bexachlorocyclopenta         ND         10         ug/L         SW846         8270C           benzene         Bexachlorocyclopenta         ND         10         ug/L         SW846         8270C           chieacene         ND         10         ug/L					
2,4-Dichlorophenol         ND         10         ug/L         SW846         8270C           1,2,4-Trichloro-benzene         ND         10         ug/L         SW846         8270C           Naphthalene         ND         10         ug/L         SW846         8270C           2,6-Dichlorophenol         ND         10         ug/L         SW846         8270C           4-Chloroaniline         ND         10         ug/L         SW846         8270C           Hexachlorobutadiene         ND         10         ug/L         SW846         8270C           4-Chloro-3-methylphenol         ND         10         ug/L         SW846         8270C           4-Chloro-3-methylphenol         ND         10         ug/L         SW846         8270C           3afrole         ND         10         ug/L         SW846         8270C           4-Chloro-3-methylphenol         ND         10         ug/L         SW846         8270C           5afrole         ND         10         ug/L         SW846         8270C           5afrole         ND         10         ug/L         SW846         8270C           6-Exachlorocyclopenta-diene         ND         10         ug/L			_ 0	~ 9 / L	211010 02100
2,4-Dichlorophenol         ND         10         ug/L         SW846         8270C           1,2,4-Trichloro-benzene         ND         10         ug/L         SW846         8270C           Naphthalene         ND         10         ug/L         SW846         8270C           2,6-Dichlorophenol         ND         10         ug/L         SW846         8270C           4-Chloroaniline         ND         10         ug/L         SW846         8270C           Hexachlorobutadiene         ND         10         ug/L         SW846         8270C           4-Chloro-3-methylphenol         ND         10         ug/L         SW846         8270C           4-Chloro-3-methylphenol         ND         10         ug/L         SW846         8270C           3afrole         ND         10         ug/L         SW846         8270C           4-Chloro-3-methylphenol         ND         10         ug/L         SW846         8270C           5afrole         ND         10         ug/L         SW846         8270C           5afrole         ND         10         ug/L         SW846         8270C           6-Exachlorocyclopenta-diene         ND         10         ug/L	alpha, alpha-Dimethylphene	ND	50	ug/L	SW846 8270C
1,2,4-Trichloro-  ND   10				_	
Naphthalene		ND			
2,6-Dichlorophenol         ND         10         ug/L         SW846         8270C           4-Chloroaniline         ND         10         ug/L         SW846         8270C           Hexachlorobutadiene         ND         10         ug/L         SW846         8270C           p-Phenylene diamine         ND         100         ug/L         SW846         8270C           4-Chloro-3-methylphenol         ND         20         ug/L         SW846         8270C           5afrole         ND         20         ug/L         SW846         8270C           1,2,4,5-Tetrachloro- benzene         ND         50         ug/L         SW846         8270C           diene              8270C           diene              8270C           diene              8270C           diene              8270C           phenol             8270C            2,4,6-Trichloro- ph					
### A-Chloroaniline	Naphthalene	ND	10	ug/L	SW846 8270C
Hexachlorobutadiene	2,6-Dichlorophenol	ND	10	ug/L	SW846 8270C
Description	4-Chloroaniline	ND	10	ug/L	SW846 8270C
4-Chloro-3-methylphenol         ND         10         ug/L         SW846         8270C           Safrole         ND         20         ug/L         SW846         8270C           1,2,4,5-Tetrachloro-         ND         10         ug/L         SW846         8270C           benzene         ND         50         ug/L         SW846         8270C           diene         24,6-Trichloro-         ND         10         ug/L         SW846         8270C           phenol         20         ug/L         SW846         8270C	Hexachlorobutadiene	ND	10	ug/L	SW846 8270C
Safrole	p-Phenylene diamine	ND	100	ug/L	SW846 8270C
1,2,4,5-Tetrachlorobenzen	4-Chloro-3-methylphenol	ND	10	ug/L	SW846 8270C
Denzene	Safrole	ND	20	ug/L	SW846 8270C
Hexachlorocyclopenta- diene   Sumana   Sumana	1,2,4,5-Tetrachloro-	ND	10	ug/L	SW846 8270C
diene       valuable       va					
2,4,6-Trichloro- phenol       ND       10       ug/L       SW846 8270C         2,4,5-Trichloro- phenol       ND       10       ug/L       SW846 8270C         2-Chloronaphthalene       ND       10       ug/L       SW846 8270C         Isosafrole       ND       20       ug/L       SW846 8270C         2-Nitroaniline       ND       50       ug/L       SW846 8270C         2-Nitrosodi-n-butylamine       ND       50       ug/L       SW846 8270C         N-Nitrosodi-n-butylamine       ND       10       ug/L       SW846 8270C         Dimethyl phthalate       ND       10       ug/L       SW846 8270C         Acenaphtylene       ND       10       ug/L       SW846 8270C         Acenaphtylene       ND       10       ug/L       SW846 8270C         3-Nitroaniline       ND       10       ug/L       SW846 8270C         3-Nitroaniline       ND       10       ug/L       SW846 8270C         4-Pinitrophenol       ND       10       ug/L       SW846 8270C         2,4-Dinitrophenol       ND       50       ug/L       SW846 8270C         2,4-Dinitrophenol       ND       50       ug/L       SW846 8270C <td></td> <td>ND</td> <td>50</td> <td>ug/L</td> <td>SW846 8270C</td>		ND	50	ug/L	SW846 8270C
phenol         2,4,5-Trichloro-phenol         ND         10         ug/L         SW846 8270C           2-Chloronaphthalene         ND         10         ug/L         SW846 8270C           2-Chloronaphthalene         ND         20         ug/L         SW846 8270C           2-Nitroaniline         ND         50         ug/L         SW846 8270C           1,4-Naphthoquinone         ND         50         ug/L         SW846 8270C           N-Nitrosodi-n-butylamine         ND         10         ug/L         SW846 8270C           Dimethyl phthalate         ND         10         ug/L         SW846 8270C           1,3-Dinitrobenzene         ND         10         ug/L         SW846 8270C           Acenaphthylene         ND         10         ug/L         SW846 8270C           2,6-Dinitrotoluene         ND         10         ug/L         SW846 8270C           3-Nitroaniline         ND         50         ug/L         SW846 8270C           4-Chlitrophenol         ND         50         ug/L         SW846 8270C           2,4-Dinitroblene         ND         50         ug/L         SW846 8270C           4-Nitrophenol         ND         50         ug/L         SW846 8270C </td <td></td> <td></td> <td></td> <td></td> <td></td>					
2,4,5-Trichloro-phenol		ND	10	ug/L	SW846 8270C
phenol         2-Chloronaphthalene         ND         10         ug/L         SW846         8270C           Isosafrole         ND         20         ug/L         SW846         8270C           2-Nitroaniline         ND         50         ug/L         SW846         8270C           1,4-Naphthoquinone         ND         50         ug/L         SW846         8270C           N-Nitrosodi-n-butylamine         ND         10         ug/L         SW846         8270C           Dimethyl phthalate         ND         10         ug/L         SW846         8270C           1,3-Dinitrobenzene         ND         10         ug/L         SW846         8270C           Acenaphthylene         ND         10         ug/L         SW846         8270C           2,6-Dinitrotoluene         ND         10         ug/L         SW846         8270C           3-Nitroaniline         ND         50         ug/L         SW846         8270C           Acenaphthene         ND         10         ug/L         SW846         8270C           2,4-Dinitroblenel         ND         50         ug/L         SW846         8270C           2,4-Dinitroblenel         ND         10			-22		
2-Chloronaphthalene         ND         10         ug/L         SW846         8270C           Isosafrole         ND         20         ug/L         SW846         8270C           2-Nitroaniline         ND         50         ug/L         SW846         8270C           1,4-Naphthoquinone         ND         50         ug/L         SW846         8270C           N-Nitrosodi-n-butylamine         ND         10         ug/L         SW846         8270C           Dimethyl phthalate         ND         10         ug/L         SW846         8270C           1,3-Dinitrobenzene         ND         10         ug/L         SW846         8270C           Acenaphtylene         ND         10         ug/L         SW846         8270C           2,6-Dinitrotoluene         ND         10         ug/L         SW846         8270C           3-Nitroaniline         ND         50         ug/L         SW846         8270C           Acenaphthene         ND         10         ug/L         SW846         8270C           2,4-Dinitrophenol         ND         50         ug/L         SW846         8270C           2,4-Dinitrotoluene         ND         10         ug/L		ND	10	ug/L	SW846 8270C
Isosafrole		19627		/-	
2-Nitroaniline ND 50 ug/L SW846 8270C  1,4-Naphthoquinone ND 50 ug/L SW846 8270C  N-Nitrosodi-n-butylamine ND 10 ug/L SW846 8270C  Dimethyl phthalate ND 10 ug/L SW846 8270C  1,3-Dinitrobenzene ND 10 ug/L SW846 8270C  Acenaphthylene ND 10 ug/L SW846 8270C  2,6-Dinitrotoluene ND 10 ug/L SW846 8270C  3-Nitroaniline ND 50 ug/L SW846 8270C  Acenaphthene ND 10 ug/L SW846 8270C  Acenaphthene ND 50 ug/L SW846 8270C  2,4-Dinitrophenol ND 50 ug/L SW846 8270C  2,4-Dinitrophenol ND 50 ug/L SW846 8270C  4-Nitrophenol ND 50 ug/L SW846 8270C  Dibenzofuran ND 10 ug/L SW846 8270C  Pentachlorobenzene ND 10 ug/L SW846 8270C  2,4-Dinitrotoluene ND 10 ug/L SW846 8270C  2,4-Dinitrotoluene ND 10 ug/L SW846 8270C  2,4-Dinitrotoluene ND 10 ug/L SW846 8270C  2,3,4,6-Tetrachlorophenol ND 50 ug/L SW846 8270C  2-Naphthylamine ND 10 ug/L SW846 8270C  2-Naphthylamine ND 10 ug/L SW846 8270C  2-Naphthylamine ND 10 ug/L SW846 8270C  0,0-Diethyl-O-(2-pyraziny ND 50 ug/L SW846 8270C  Diethyl phthalate ND 10 ug/L SW846 8270C  Fluorene ND 10 ug/L SW846 8270C  4-Chlorophenyl phenyl ND 50 ug/L SW846 8270C  4-Chlorophenyl phenyl ND 50 ug/L SW846 8270C				_	
1,4-Naphthoquinone       ND       50       ug/L       SW846       8270C         N-Nitrosodi-n-butylamine       ND       10       ug/L       SW846       8270C         Dimethyl phthalate       ND       10       ug/L       SW846       8270C         1,3-Dinitrobenzene       ND       10       ug/L       SW846       8270C         Acenaphthylene       ND       10       ug/L       SW846       8270C         2,6-Dinitrotoluene       ND       10       ug/L       SW846       8270C         3-Nitroaniline       ND       50       ug/L       SW846       8270C         Acenaphthene       ND       10       ug/L       SW846       8270C         2,4-Dinitrophenol       ND       50       ug/L       SW846       8270C         4-Nitrophenol       ND       50       ug/L       SW846       8270C         4-Nitrophenol       ND       50       ug/L       SW846       8270C         Dibenzofuran       ND       10       ug/L       SW846       8270C         2,4-Dinitrotoluene       ND       10       ug/L       SW846       8270C         2,4-Dinitrotoluene       ND       10       ug/L <td></td> <td></td> <td></td> <td>_</td> <td></td>				_	
N-Nitrosodi-n-butylamine         ND         10         ug/L         SW846         8270C           Dimethyl phthalate         ND         10         ug/L         SW846         8270C           1,3-Dinitrobenzene         ND         10         ug/L         SW846         8270C           Acenaphthylene         ND         10         ug/L         SW846         8270C           2,6-Dinitrotoluene         ND         10         ug/L         SW846         8270C           3-Nitroaniline         ND         50         ug/L         SW846         8270C           Acenaphthene         ND         10         ug/L         SW846         8270C           2,4-Dinitrophenol         ND         50         ug/L         SW846         8270C           4-Nitrophenol         ND         10         ug/L         SW846         8270C           Dibenzofuran         ND         10         ug/L         SW846         8270C           Pentachlorobenzene         ND         10         ug/L         SW846         8270C           2,4-Dinitrotoluene         ND         10         ug/L         SW846         8270C           2,4-Dinitrotoluene         ND         10         ug/L					
Dimethyl phthalate ND 10 ug/L SW846 8270C  1,3-Dinitrobenzene ND 10 ug/L SW846 8270C  Acenaphthylene ND 10 ug/L SW846 8270C  2,6-Dinitrotoluene ND 10 ug/L SW846 8270C  3-Nitroaniline ND 50 ug/L SW846 8270C  Acenaphthene ND 10 ug/L SW846 8270C  Acenaphthene ND 10 ug/L SW846 8270C  4-Dinitrophenol ND 50 ug/L SW846 8270C  4-Nitrophenol ND 50 ug/L SW846 8270C  Dibenzofuran ND 10 ug/L SW846 8270C  Pentachlorobenzene ND 10 ug/L SW846 8270C  2,4-Dinitrotoluene ND 10 ug/L SW846 8270C  2,4-Dinitrotoluene ND 10 ug/L SW846 8270C  2,4-Dinitrotoluene ND 10 ug/L SW846 8270C  2,3,4,6-Tetrachlorophenol ND 50 ug/L SW846 8270C  2-Naphthylamine ND 10 ug/L SW846 8270C  2-Naphthylamine ND 10 ug/L SW846 8270C  2-Naphthylamine ND 10 ug/L SW846 8270C  Diethyl-O-(2-pyraziny ND 50 ug/L SW846 8270C  Diethyl phthalate ND 10 ug/L SW846 8270C  Fluorene ND 10 ug/L SW846 8270C  4-Chlorophenyl phenyl ND 10 ug/L SW846 8270C					
1,3-Dinitrobenzene       ND       10       ug/L       SW846 8270C         Acenaphthylene       ND       10       ug/L       SW846 8270C         2,6-Dinitrotoluene       ND       10       ug/L       SW846 8270C         3-Nitroaniline       ND       50       ug/L       SW846 8270C         Acenaphthene       ND       10       ug/L       SW846 8270C         2,4-Dinitrophenol       ND       50       ug/L       SW846 8270C         4-Nitrophenol       ND       50       ug/L       SW846 8270C         Dibenzofuran       ND       10       ug/L       SW846 8270C         Pentachlorobenzene       ND       10       ug/L       SW846 8270C         2,4-Dinitrotoluene       ND       10       ug/L       SW846 8270C         1-Naphthylamine       ND       10       ug/L       SW846 8270C         2,3,4,6-Tetrachlorophenol       ND       50       ug/L       SW846 8270C         2-Naphthylamine       ND       10       ug/L       SW846 8270C         0,0-Diethyl-O-(2-pyraziny       ND       50       ug/L       SW846 8270C         Diethyl phthalate       ND       10       ug/L       SW846 8270C				_	
Acenaphthylene       ND       10       ug/L       SW846       8270C         2,6-Dinitrotoluene       ND       10       ug/L       SW846       8270C         3-Nitroaniline       ND       50       ug/L       SW846       8270C         Acenaphthene       ND       10       ug/L       SW846       8270C         2,4-Dinitrophenol       ND       50       ug/L       SW846       8270C         4-Nitrophenol       ND       10       ug/L       SW846       8270C         Dibenzofuran       ND       10       ug/L       SW846       8270C         Pentachlorobenzene       ND       10       ug/L       SW846       8270C         2,4-Dinitrotoluene       ND       10       ug/L       SW846       8270C         1-Naphthylamine       ND       10       ug/L       SW846       8270C         2,3,4,6-Tetrachlorophenol       ND       50       ug/L       SW846       8270C         2-Naphthylamine       ND       10       ug/L       SW846       8270C         Diethyl phthalate       ND       10       ug/L       SW846       8270C         Fluorene       ND       10       ug/L <t< td=""><td></td><td></td><td></td><td>_</td><td></td></t<>				_	
2,6-Dinitrotoluene       ND       10       ug/L       SW846       8270C         3-Nitroaniline       ND       50       ug/L       SW846       8270C         Acenaphthene       ND       10       ug/L       SW846       8270C         2,4-Dinitrophenol       ND       50       ug/L       SW846       8270C         4-Nitrophenol       ND       10       ug/L       SW846       8270C         Dibenzofuran       ND       10       ug/L       SW846       8270C         Pentachlorobenzene       ND       10       ug/L       SW846       8270C         2,4-Dinitrotoluene       ND       10       ug/L       SW846       8270C         1-Naphthylamine       ND       10       ug/L       SW846       8270C         2,3,4,6-Tetrachlorophenol       ND       50       ug/L       SW846       8270C         2-Naphthylamine       ND       10       ug/L       SW846       8270C         O,O-Diethyl-O-(2-pyraziny       ND       50       ug/L       SW846       8270C         Diethyl phthalate       ND       10       ug/L       SW846       8270C         4-Chlorophenyl phenyl       ND       10					
3-Nitroaniline       ND       50       ug/L       SW846       8270C         Acenaphthene       ND       10       ug/L       SW846       8270C         2,4-Dinitrophenol       ND       50       ug/L       SW846       8270C         4-Nitrophenol       ND       50       ug/L       SW846       8270C         Dibenzofuran       ND       10       ug/L       SW846       8270C         Pentachlorobenzene       ND       10       ug/L       SW846       8270C         2,4-Dinitrotoluene       ND       10       ug/L       SW846       8270C         1-Naphthylamine       ND       10       ug/L       SW846       8270C         2,3,4,6-Tetrachlorophenol       ND       50       ug/L       SW846       8270C         2-Naphthylamine       ND       10       ug/L       SW846       8270C         0,0-Diethyl-O-(2-pyraziny       ND       50       ug/L       SW846       8270C         Diethyl phthalate       ND       10       ug/L       SW846       8270C         4-Chlorophenyl phenyl       ND       10       ug/L       SW846       8270C					
Acenaphthene       ND       10       ug/L       SW846       8270C         2,4-Dinitrophenol       ND       50       ug/L       SW846       8270C         4-Nitrophenol       ND       50       ug/L       SW846       8270C         Dibenzofuran       ND       10       ug/L       SW846       8270C         Pentachlorobenzene       ND       10       ug/L       SW846       8270C         2,4-Dinitrotoluene       ND       10       ug/L       SW846       8270C         1-Naphthylamine       ND       10       ug/L       SW846       8270C         2,3,4,6-Tetrachlorophenol       ND       50       ug/L       SW846       8270C         2-Naphthylamine       ND       10       ug/L       SW846       8270C         0,0-Diethyl-O-(2-pyraziny       ND       50       ug/L       SW846       8270C         Diethyl phthalate       ND       10       ug/L       SW846       8270C         Fluorene       ND       10       ug/L       SW846       8270C         4-Chlorophenyl phenyl       ND       10       ug/L       SW846       8270C				_	
2,4-Dinitrophenol       ND       50       ug/L       SW846 8270C         4-Nitrophenol       ND       50       ug/L       SW846 8270C         Dibenzofuran       ND       10       ug/L       SW846 8270C         Pentachlorobenzene       ND       10       ug/L       SW846 8270C         2,4-Dinitrotoluene       ND       10       ug/L       SW846 8270C         1-Naphthylamine       ND       10       ug/L       SW846 8270C         2,3,4,6-Tetrachlorophenol       ND       50       ug/L       SW846 8270C         2-Naphthylamine       ND       10       ug/L       SW846 8270C         0,0-Diethyl-O-(2-pyraziny       ND       50       ug/L       SW846 8270C         Diethyl phthalate       ND       10       ug/L       SW846 8270C         Fluorene       ND       10       ug/L       SW846 8270C         4-Chlorophenyl phenyl       ND       10       ug/L       SW846 8270C				_	
4-Nitrophenol       ND       50       ug/L       SW846 8270C         Dibenzofuran       ND       10       ug/L       SW846 8270C         Pentachlorobenzene       ND       10       ug/L       SW846 8270C         2,4-Dinitrotoluene       ND       10       ug/L       SW846 8270C         1-Naphthylamine       ND       10       ug/L       SW846 8270C         2,3,4,6-Tetrachlorophenol       ND       50       ug/L       SW846 8270C         2-Naphthylamine       ND       10       ug/L       SW846 8270C         0,0-Diethyl-O-(2-pyraziny       ND       50       ug/L       SW846 8270C         Diethyl phthalate       ND       10       ug/L       SW846 8270C         Fluorene       ND       10       ug/L       SW846 8270C         4-Chlorophenyl phenyl       ND       10       ug/L       SW846 8270C					
Dibenzofuran         ND         10         ug/L         SW846 8270C           Pentachlorobenzene         ND         10         ug/L         SW846 8270C           2,4-Dinitrotoluene         ND         10         ug/L         SW846 8270C           1-Naphthylamine         ND         10         ug/L         SW846 8270C           2,3,4,6-Tetrachlorophenol         ND         50         ug/L         SW846 8270C           2-Naphthylamine         ND         10         ug/L         SW846 8270C           0,0-Diethyl-O-(2-pyraziny         ND         50         ug/L         SW846 8270C           Diethyl phthalate         ND         10         ug/L         SW846 8270C           Fluorene         ND         10         ug/L         SW846 8270C           4-Chlorophenyl phenyl         ND         10         ug/L         SW846 8270C					
Pentachlorobenzene         ND         10         ug/L         SW846 8270C           2,4-Dinitrotoluene         ND         10         ug/L         SW846 8270C           1-Naphthylamine         ND         10         ug/L         SW846 8270C           2,3,4,6-Tetrachlorophenol         ND         50         ug/L         SW846 8270C           2-Naphthylamine         ND         10         ug/L         SW846 8270C           0,0-Diethyl-O-(2-pyraziny         ND         50         ug/L         SW846 8270C           Diethyl phthalate         ND         10         ug/L         SW846 8270C           Fluorene         ND         10         ug/L         SW846 8270C           4-Chlorophenyl phenyl         ND         10         ug/L         SW846 8270C				_	
2,4-Dinitrotoluene       ND       10       ug/L       SW846 8270C         1-Naphthylamine       ND       10       ug/L       SW846 8270C         2,3,4,6-Tetrachlorophenol       ND       50       ug/L       SW846 8270C         2-Naphthylamine       ND       10       ug/L       SW846 8270C         0,0-Diethyl-O-(2-pyraziny       ND       50       ug/L       SW846 8270C         Diethyl phthalate       ND       10       ug/L       SW846 8270C         Fluorene       ND       10       ug/L       SW846 8270C         4-Chlorophenyl phenyl       ND       10       ug/L       SW846 8270C					
1-Naphthylamine ND 10 ug/L SW846 8270C 2,3,4,6-Tetrachlorophenol ND 50 ug/L SW846 8270C 2-Naphthylamine ND 10 ug/L SW846 8270C 0,0-Diethyl-O-(2-pyraziny ND 50 ug/L SW846 8270C Diethyl phthalate ND 10 ug/L SW846 8270C Fluorene ND 10 ug/L SW846 8270C 4-Chlorophenyl phenyl ND 10 ug/L SW846 8270C					
2,3,4,6-Tetrachlorophenol       ND       50       ug/L       SW846 8270C         2-Naphthylamine       ND       10       ug/L       SW846 8270C         0,0-Diethyl-O-(2-pyraziny       ND       50       ug/L       SW846 8270C         Diethyl phthalate       ND       10       ug/L       SW846 8270C         Fluorene       ND       10       ug/L       SW846 8270C         4-Chlorophenyl phenyl       ND       10       ug/L       SW846 8270C					
O,O-Diethyl-O-(2-pyraziny       ND       50       ug/L       SW846 8270C         Diethyl phthalate       ND       10       ug/L       SW846 8270C         Fluorene       ND       10       ug/L       SW846 8270C         4-Chlorophenyl phenyl       ND       10       ug/L       SW846 8270C		ND	50	_	
Diethyl phthalate         ND         10         ug/L         SW846 8270C           Fluorene         ND         10         ug/L         SW846 8270C           4-Chlorophenyl phenyl         ND         10         ug/L         SW846 8270C	2-Naphthylamine	ND	10	ug/L	SW846 8270C
Diethyl phthalate         ND         10         ug/L         SW846 8270C           Fluorene         ND         10         ug/L         SW846 8270C           4-Chlorophenyl phenyl         ND         10         ug/L         SW846 8270C		ND	50	ug/L	SW846 8270C
4-Chlorophenyl phenyl ND 10 ug/L SW846 8270C			10		
	Fluorene	ND	10	ug/L	SW846 8270C
ether	4-Chlorophenyl phenyl	ND	10	ug/L	SW846 8270C
	ether				

# GC/MS Semivolatiles

Client Lot #: SL1265	Work Order #: MR3TT1AA	Matrix WATER
CIICIIC IICC IIICC III CIII - C C C C	WOLK OLUCE W III(OIIIIII)	

PARAMETER			REPORTI	NG	
4-Nitroaniline         ND         50         ug/L         SW846         8270C           4,6-Dinitro-         ND         50         ug/L         SW846         8270C           2-methylphenol         Diphenylamine+N-Nitrosodi         ND         10         ug/L         SW846         8270C           Azobenzene         ND         10         ug/L         SW846         8270C           Tetraethyldithiopyro-         ND         50         ug/L         SW846         8270C           phosphate         1,3,5-Trinitrobenzene         ND         50         ug/L         SW846         8270C           Diallate         ND         20         ug/L         SW846         8270C           Phorate         ND         50         ug/L         SW846         8270C           4-Bromophenyl phenyl         ND         10         ug/L         SW846         8270C           ether         Phenacetin         ND         20         ug/L         SW846         8270C           Dimethoate         ND         20         ug/L         SW846         8270C           Pentachlorobenzene         ND         50         ug/L         SW846         8270C	PARAMETER	RESULT			METHOD
4,6-Dinitro-       ND       50       ug/L       SW846       8270C         2-methylphenol       ND       10       ug/L       SW846       8270C         Azobenzene       ND       10       ug/L       SW846       8270C         Azobenzene       ND       50       ug/L       SW846       8270C         Tetraethyldithiopyro- phosphate       ND       50       ug/L       SW846       8270C         phosphate       ND       20       ug/L       SW846       8270C         Diallate       ND       20       ug/L       SW846       8270C         Phorate       ND       50       ug/L       SW846       8270C         4-Bromophenyl phenyl ether       ND       10       ug/L       SW846       8270C         Phenacetin       ND       20       ug/L       SW846       8270C         Dimethoate       ND       20       ug/L       SW846       8270C         Pentachlorobenzene       ND       50       ug/L       SW846       8270C         Pentachloronitrobenzene       ND       50       ug/L       SW846       8270C         Pentachloronitrobenzene       ND       50       ug/L		***************************************			
2-methylphenol         Diphenylamine+N-Nitrosodi       ND       10       ug/L       SW846       8270C         Azobenzene       ND       10       ug/L       SW846       8270C         Tetraethyldithiopyro- phosphate       ND       50       ug/L       SW846       8270C         1,3,5-Trinitrobenzene       ND       50       ug/L       SW846       8270C         Diallate       ND       20       ug/L       SW846       8270C         Phorate       ND       50       ug/L       SW846       8270C         4-Bromophenyl phenyl ether       ND       10       ug/L       SW846       8270C         Phenacetin       ND       20       ug/L       SW846       8270C         Dimethoate       ND       20       ug/L       SW846       8270C         Hexachlorobenzene       ND       10       ug/L       SW846       8270C         Pentachloronitrobenzene       ND       50       ug/L       SW846       8270C         Pentachloronitrobenzene       ND       50       ug/L       SW846       8270C         Ponamide       ND       50       ug/L       SW846       8270C <td></td> <td></td> <td></td> <td></td> <td></td>					
Diphenylamine+N-Nitrosodi         ND         10         ug/L         SW846 8270C           Azobenzene         ND         10         ug/L         SW846 8270C           Tetraethyldithiopyro-         ND         50         ug/L         SW846 8270C           phosphate               1,3,5-Trinitrobenzene         ND         50         ug/L         SW846 8270C           Diallate         ND         20         ug/L         SW846 8270C           Phorate         ND         50         ug/L         SW846 8270C           4-Bromophenyl phenyl         ND         10         ug/L         SW846 8270C           ether             8270C           Phenacetin         ND         20         ug/L         SW846 8270C            Dimethoate         ND         20         ug/L         SW846 8270C            Hexachlorobenzene         ND         50         ug/L         SW846 8270C            Pentachloronitrobenzene         ND         50         ug/L         SW846 8270C            4-Aminobiphenyl         ND         50         ug/L <td></td> <td></td> <td></td> <td>3,</td> <td></td>				3,	
Azobenzene         ND         10         ug/L         SW846         8270C           Tetraethyldithiopyro-         ND         50         ug/L         SW846         8270C           phosphate		ND	10	ug/L	SW846 8270C
phosphate       ND       50       ug/L       SW846       8270C         Diallate       ND       20       ug/L       SW846       8270C         Phorate       ND       50       ug/L       SW846       8270C         4-Bromophenyl phenyl       ND       10       ug/L       SW846       8270C         ether       Phenacetin       ND       20       ug/L       SW846       8270C         Dimethoate       ND       20       ug/L       SW846       8270C         Hexachlorobenzene       ND       10       ug/L       SW846       8270C         Pentachlorophenol       ND       50       ug/L       SW846       8270C         4-Aminobiphenyl       ND       50       ug/L       SW846       8270C         Pronamide       ND       20       ug/L       SW846       8270C		ND	10	5.00	SW846 8270C
phosphate         1,3,5-Trinitrobenzene       ND       50       ug/L       SW846 8270C         Diallate       ND       20       ug/L       SW846 8270C         Phorate       ND       50       ug/L       SW846 8270C         4-Bromophenyl phenyl       ND       10       ug/L       SW846 8270C         ether       Phenacetin       ND       20       ug/L       SW846 8270C         Dimethoate       ND       20       ug/L       SW846 8270C         Hexachlorobenzene       ND       10       ug/L       SW846 8270C         Pentachlorophenol       ND       50       ug/L       SW846 8270C         Pentachloronitrobenzene       ND       50       ug/L       SW846 8270C         4-Aminobiphenyl       ND       50       ug/L       SW846 8270C         Pronamide       ND       20       ug/L       SW846 8270C	Tetraethyldithiopyro-	ND	50		SW846 8270C
Diallate         ND         20         ug/L         SW846         8270C           Phorate         ND         50         ug/L         SW846         8270C           4-Bromophenyl phenyl         ND         10         ug/L         SW846         8270C           ether         Phenacetin         ND         20         ug/L         SW846         8270C           Dimethoate         ND         20         ug/L         SW846         8270C           Hexachlorobenzene         ND         10         ug/L         SW846         8270C           Pentachlorophenol         ND         50         ug/L         SW846         8270C           4-Aminobiphenyl         ND         50         ug/L         SW846         8270C           Pronamide         ND         20         ug/L         SW846         8270C					
Phorate         ND         50         ug/L         SW846         8270C           4-Bromophenyl phenyl         ND         10         ug/L         SW846         8270C           ether         Phenacetin         ND         20         ug/L         SW846         8270C           Dimethoate         ND         20         ug/L         SW846         8270C           Hexachlorobenzene         ND         10         ug/L         SW846         8270C           Pentachlorophenol         ND         50         ug/L         SW846         8270C           4-Aminobiphenyl         ND         50         ug/L         SW846         8270C           Pronamide         ND         20         ug/L         SW846         8270C	1,3,5-Trinitrobenzene	ND	50	ug/L	SW846 8270C
4-Bromophenyl phenyl ether       ND       10       ug/L       SW846 8270C         Phenacetin       ND       20       ug/L       SW846 8270C         Dimethoate       ND       20       ug/L       SW846 8270C         Hexachlorobenzene       ND       10       ug/L       SW846 8270C         Pentachlorophenol       ND       50       ug/L       SW846 8270C         Pentachloronitrobenzene       ND       50       ug/L       SW846 8270C         4-Aminobiphenyl       ND       50       ug/L       SW846 8270C         Pronamide       ND       20       ug/L       SW846 8270C	Diallate	ND	20	ug/L	SW846 8270C
ether           Phenacetin         ND         20         ug/L         SW846         8270C           Dimethoate         ND         20         ug/L         SW846         8270C           Hexachlorobenzene         ND         10         ug/L         SW846         8270C           Pentachlorophenol         ND         50         ug/L         SW846         8270C           Pentachloronitrobenzene         ND         50         ug/L         SW846         8270C           4-Aminobiphenyl         ND         50         ug/L         SW846         8270C           Pronamide         ND         20         ug/L         SW846         8270C	Phorate	ND	50	ug/L	SW846 8270C
Phenacetin         ND         20         ug/L         SW846         8270C           Dimethoate         ND         20         ug/L         SW846         8270C           Hexachlorobenzene         ND         10         ug/L         SW846         8270C           Pentachlorophenol         ND         50         ug/L         SW846         8270C           Pentachloronitrobenzene         ND         50         ug/L         SW846         8270C           4-Aminobiphenyl         ND         50         ug/L         SW846         8270C           Pronamide         ND         20         ug/L         SW846         8270C	4-Bromophenyl phenyl	ND	10	ug/L	SW846 8270C
Dimethoate         ND         20         ug/L         SW846         8270C           Hexachlorobenzene         ND         10         ug/L         SW846         8270C           Pentachlorophenol         ND         50         ug/L         SW846         8270C           Pentachloronitrobenzene         ND         50         ug/L         SW846         8270C           4-Aminobiphenyl         ND         50         ug/L         SW846         8270C           Pronamide         ND         20         ug/L         SW846         8270C	ether				
Hexachlorobenzene         ND         10         ug/L         SW846         8270C           Pentachlorophenol         ND         50         ug/L         SW846         8270C           Pentachloronitrobenzene         ND         50         ug/L         SW846         8270C           4-Aminobiphenyl         ND         50         ug/L         SW846         8270C           Pronamide         ND         20         ug/L         SW846         8270C	Phenacetin	ND	20	ug/L	SW846 8270C
PentachlorophenolND50ug/LSW8468270CPentachloronitrobenzeneND50ug/LSW8468270C4-AminobiphenylND50ug/LSW8468270CPronamideND20ug/LSW8468270C	Dimethoate	ND	20	ug/L	SW846 8270C
Pentachloronitrobenzene ND 50 ug/L SW846 8270C 4-Aminobiphenyl ND 50 ug/L SW846 8270C Pronamide ND 20 ug/L SW846 8270C	Hexachlorobenzene	ND	10	ug/L	SW846 8270C
4-Aminobiphenyl         ND         50         ug/L         SW846 8270C           Pronamide         ND         20         ug/L         SW846 8270C	Pentachlorophenol	ND	50	ug/L	SW846 8270C
Pronamide ND 20 ug/L SW846 8270C	Pentachloronitrobenzene	ND	50	ug/L	SW846 8270C
	4-Aminobiphenyl	ND	50	ug/L	SW846 8270C
Digulfoton ND 50 ya/I CM946 92700	Pronamide	ND	20	ug/L	SW846 8270C
DISULTOCOM	Disulfoton	ND	50	ug/L	SW846 8270C
Phenanthrene ND 10 ug/L SW846 8270C	Phenanthrene	ND	10	ug/L	SW846 8270C
Anthracene ND 10 ug/L SW846 8270C	Anthracene	ND	10	ug/L	SW846 8270C
Carbazole ND 10 ug/L SW846 8270C	Carbazole	ND	10	ug/L	SW846 8270C
Dinoseb ND 20 ug/L SW846 8270C	Dinoseb	ND	20	ug/L	SW846 8270C
4-Nitroquinoline- ND 100 ug/L SW846 8270C	4-Nitroquinoline-	ND	100	ug/L	SW846 8270C
1-oxide	1-oxide				
Parathion ND 50 ug/L SW846 8270C	Parathion	ND	50	ug/L	SW846 8270C
Methapyrilene ND 50 ug/L SW846 8270C	Methapyrilene	ND	50	ug/L	SW846 8270C
Fluoranthene ND 10 ug/L SW846 8270C	Fluoranthene	ND	10	ug/L	SW846 8270C
Isodrin ND 10 ug/L SW846 8270C	Isodrin	ND	10	ug/L	SW846 8270C
Pyrene ND 10 ug/L SW846 8270C	Pyrene	ND	10	ug/L	SW846 8270C
Aramite 1 ND 20 ug/L SW846 8270C	Aramite 1	ND	20	ug/L	SW846 8270C
Aramite 2 ND 20 ug/L SW846 8270C	Aramite 2	ND	20	ug/L	SW846 8270C
p-Dimethylaminoazobenzene ND 20 ug/L SW846 8270C	p-Dimethylaminoazobenzene	ND	20	ug/L	SW846 8270C
p-Chlorobenzilate ND 10 ug/L SW846 8270C	p-Chlorobenzilate	ND	10	ug/L	SW846 8270C
Famphur ND 100 ug/L SW846 8270C	Famphur	ND	100	ug/L	SW846 8270C
Kepone         ND         100         ug/L         SW846 8270C	Kepone	ND	100	ug/L	SW846 8270C
3,3'-Dimethylbenzidine ND 50 ug/L SW846 8270C	3,3'-Dimethylbenzidine	ND	50	ug/L	SW846 8270C
Butyl benzyl phthalate ND 10 ug/L SW846 8270C	Butyl benzyl phthalate	ND	10	ug/L	SW846 8270C
2-Acetylaminofluorene ND 100 ug/L SW846 8270C	2-Acetylaminofluorene	ND	100	ug/L	SW846 8270C
Benzo(a)anthracene ND 10 ug/L SW846 8270C	Benzo(a)anthracene	ND	10	ug/L	SW846 8270C
3,3'-Dichlorobenzidine ND 50 ug/L SW846 8270C	3,3'-Dichlorobenzidine	ND	50	ug/L	SW846 8270C
Chrysene ND 10 ug/L SW846 8270C	Chrysene	ND	10	ug/L	SW846 8270C
bis(2-Ethylhexyl) ND 10 ug/L SW846 8270C	bis(2-Ethylhexyl)	ND	10	ug/L	SW846 8270C
phthalate	phthalate				

## GC/MS Semivolatiles

Client Lot #: SL1265	Work Order #: MR3TT1AA			Matrix WATER
		REPORTING		
PARAMETER	RESULT	LIMIT	UNITS	METHOD
Di-n-butyl phthalate	ND	10	ug/L	SW846 8270C
Di-n-octyl phthalate	ND	10	ug/L	SW846 8270C
7,12-Dimethylbenz(a)-	ND	20	ug/L	SW846 8270C
anthracene				
Benzo(b) fluoranthene	ND	10	ug/L	SW846 8270C
Benzo(k) fluoranthene	ND	10	ug/L	SW846 8270C
Benzo(a)pyrene	ND	10	ug/L	SW846 8270C
3-Methylcholanthrene	ND	20	ug/L	SW846 8270C
Indeno(1,2,3-cd)pyrene	ND	10	ug/L	SW846 8270C
Benzo(ghi)perylene	ND	10	ug/L	SW846 8270C
Dibenz(a,h)anthracene	ND	10	ug/L	SW846 8270C
Tributyl phosphate	ND	10	ug/L	SW846 8270C
	PERCENT	RECOVERY		
SURROGATE	RECOVERY	LIMITS		
2-Fluorophenol	46	(19 - 86)	)	
Phenol-d5	30	(10 - 71)	)	
Nitrobenzene-d5	70	(44 - 100)	0)	
2-Fluorobiphenyl	66	(44 - 99)	)	
2,4,6-Tribromophenol	74	(43 - 115)	5)	
Terphenyl-d14	83	(45 - 133	1)	

# NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

# Method Blank Report

GC/MS Semivolatiles

Lot-Sample #: F2D180000-120 B Work Order #: MR3TT1AA Matrix: WATER

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

			ESTIMATED		RETENTION	
PARAMETER	CAS	#	RESULT		TIME	UNITS
Unknown			4.1 J	M	3.6383	ug/L
Unknown aldol condensate			17 J	M	3.9699	ug/L

# NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

## GC/MS Semivolatiles

Client Lot #...: SL1265 Work Order #...: MR4VW1AA Matrix.... WATER

**MB** Lot-Sample #: F2D200000-079

Prep Date....: 04/20/12 Prep Batch #...: 2111079

Analysis Date..: 04/25/12

Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOI	
PARAMETER	KESULI	TIMII	011112	MEINOL	
1,4-Dioxane	ND	10	ug/L	SW846	8270C
	PERCENT	RECOVERY			
SURROGATE	RECOVERY	LIMITS	_		
2-Fluorophenol	53	(19 - 86)			
Phenol-d5	35	(10 - 71)			
Nitrobenzene-d5	84	(44 - 100)	)		
2-Fluorobiphenyl	83	(44 - 99)			
2,4,6-Tribromophenol	96	(43 - 115)	)		
Terphenyl-d14	98	(45 - 131)	)		

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

# Method Blank Report

GC/MS Semivolatiles

Lot-Sample #: F2D200000-079 B Work Order #: MR4VW1AA Matrix: WATER

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

			ES'	TIMATED		RETENTION	ſ
PARAMETER	CAS	#	RE	SULT		TIME	UNITS
Unknown			38	J	M	3.3815	ug/L
Unknown aldol condensate			25	J	M	3.9645	ug/L

# NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

## GC/MS Semivolatiles

Client Lot #...: SL1265 Work Order #...: MR3TT1AC-LCS Matrix..... WATER

LCS Lot-Sample#: F2D180000-120 MR3TT1AD-LCSD

Prep Batch #...: 2109120

Dilution Factor: 1

	SPIKE	MEASUREI	)	PERCENT		
PARAMETER	AMOUNT	AMOUNT	UNITS	RECOVERY	RPD	METHOD
3-Methylphenol &	100	62.0	ug/L	62		SW846 8270C
4-Methylphenol						
	100	62.1	ug/L	62	0.19	SW846 8270C
			3			
Phenol	100	29.2	ug/L	29		SW846 8270C
	100	28.9	ug/L	29	1.1	SW846 8270C
bis(2-Chloroethyl)-	100	69.1	ug/L	69		SW846 8270C
ether			3			
	100	70.4	ug/L	70	1.8	SW846 8270C
			3.			
2-Chlorophenol	100	68.2	ug/L	68		SW846 8270C
-	100	69.4	ug/L	69	1.6	SW846 8270C
1,3-Dichlorobenzene	100	67.8	ug/L	68		SW846 8270C
	100	67.0	ug/L	67	1.2	SW846 8270C
1,4-Dichlorobenzene	100	66.9	ug/L	67		SW846 8270C
•	100	66.9	ug/L	67	0.010	SW846 8270C
1,2-Dichlorobenzene	100	68.6	ug/L	69		SW846 8270C
	100	68.5	ug/L	68	0.13	SW846 8270C
2-Methylphenol	100	60.5	ug/L	60		SW846 8270C
1-1	100	60.8	ug/L	61	0.61	SW846 8270C
2,2'-oxybis	100	62.9	ug/L	63		SW846 8270C
(1-Chloropropane)			-5" -			
(= Gilleropropropropropropropropropropropropropr	100	63.7	ug/L	64	1.3	SW846 8270C
			-3, -			
N-Nitrosodi-n-propyl-	100	72.4	ug/L	72		SW846 8270C
amine			~5 <i>/</i> / —	-		5.10 10 02,00
	100	73.8	ug/L	74	1.9	SW846 8270C
	100	, 3.0	49, 1		,	2
Hexachloroethane	100	67.2	ug/L	67		SW846 8270C
	100	66.5	ug/L	66	1.2	SW846 8270C
Nitrobenzene	100	70.9	ug/L	71	_ • _	SW846 8270C
NI CI ODCIIZCIIC	100	72.0	ug/L	72	1.5	SW846 8270C
2-Methylnaphthalene	100	71.8	ug/L	72	1.0	SW846 8270C
2 Heary Inapiremateric	100	72.5	ug/L	73	0.97	SW846 8270C
Isophorone	100	66.2	ug/L	66	0.3"	SW846 8270C
	100	67.6	ug/L	68	2.1	SW846 8270C
2-Nitrophenol	100	73.8	ug/L	74	~ • 1	SW846 8270C
- MICTOPHOLIVI	100	75.0	ug/L	75	1.5	SW846 8270C
2,4-Dimethylphenol	100	68.9	ug/L	69	1.0	SW846 8270C
5, 1 DIMOGHAT PHOHOT	100	70.5	ug/L ug/L	70	2.2	SW846 8270C
	100	, U . J	чу/ш	, 0	L . L	DWUTU UZ/UC

## GC/MS Semivolatiles

Client Lot #...: SL1265 Work Order #...: MR3TT1AC-LCS Matrix.....: WATER

LCS Lot-Sample#: F2D180000-120 MR3TT1AD-LCSD

	SPIKE	MEASUREI	)	PERCENT		
PARAMETER	AMOUNT	AMOUNT	UNITS	RECOVERY	RPD	METHOD
bis (2-Chloroethoxy)	100	71.4	ug/L	71		SW846 8270C
methane			-3, -			
	100	72.6	ug/L	73	1.6	SW846 8270C
			- J.			
2,4-Dichlorophenol	100	72.9	ug/L	73		SW846 8270C
	100	74.9	ug/L	75	2.8	SW846 8270C
1,2,4-Trichloro-	100	73.1	ug/L	73		SW846 8270C
benzene						
	100	73.4	ug/L	73	0.39	SW846 8270C
Naphthalene	100	70.9	ug/L	71		SW846 8270C
-	100	71.1	ug/L	71	0.35	SW846 8270C
4-Chloroaniline	100	51.6	ug/L	52		SW846 8270C
	100	55.9	ug/L	56	8.1	SW846 8270C
Hexachlorobutadiene	100	74.8	ug/L	75		SW846 8270C
	100	75.7	ug/L	76	1.1	SW846 8270C
4-Chloro-3-methylphenol	100	70.5	ug/L	70		SW846 8270C
	100	72.2	ug/L	72	2.4	SW846 8270C
Hexachlorocyclopenta-	100	68.0	ug/L	68		SW846 8270C
diene						
	100	66.0	ug/L	66	3.1	SW846 8270C
2,4,6-Trichloro-	100	74.7	ug/L	75		SW846 8270C
phenol						
	100	76.9	ug/L	77	2.9	SW846 8270C
2,4,5-Trichloro-	100	77.9	ug/L	78		SW846 8270C
phenol						
	100	80.0	ug/L	80	2.7	SW846 8270C
2-Chloronaphthalene	100	72.2	ug/L	72		SW846 8270C
	100	73.5	ug/L	73	1.8	SW846 8270C
2-Nitroaniline	100	70.0	ug/L	70		SW846 8270C
	100	72.0	ug/L	72	2.9	SW846 8270C
Dimethyl phthalate	100	76.0	ug/L	76		SW846 8270C
	100	78.1	ug/L	78	2.7	SW846 8270C
Acenaphthylene	100	72.8	ug/L	73		SW846 8270C
	100	74.2	ug/L	74	1.9	SW846 8270C
2,6-Dinitrotoluene	100	75.5	ug/L	75		SW846 8270C
	100	78.1	ug/L	78	3.4	SW846 8270C
3-Nitroaniline	100	64.0	ug/L	64		SW846 8270C
	100	68.7	ug/L	69	7.0	SW846 8270C

## GC/MS Semivolatiles

Client Lot #...: SL1265 Work Order #...: MR3TT1AC-LCS Matrix.....: WATER

LCS Lot-Sample#: F2D180000-120 MR3TT1AD-LCSD

	SPIKE	MEASURED		PERCENT			
PARAMETER	AMOUNT	AMOUNT	UNITS	RECOVERY	RPD	METHOI	)
Acenaphthene	100	73.2	ug/L	73			8270C
	100	75.1	ug/L	75	2.6		8270C
2,4-Dinitrophenol	100	59.7	ug/L	60			8270C
P. F. S.	100	71.6	ug/L	72	18		8270C
4-Nitrophenol	100	30.9	ug/L	31		SW846	8270C
•	100	30.2	ug/L	30	2.2	SW846	8270C
Dibenzofuran	100	71.9	ug/L	72		SW846	8270C
	100	73.7	ug/L	74	2.5	SW846	8270C
2,4-Dinitrotoluene	100	76.1	ug/L	76		SW846	8270C
	100	77.9	ug/L	78	2.4	SW846	8270C
Diethyl phthalate	100	75.9	ug/L	76		SW846	8270C
	100	77.9	ug/L	78	2.7	SW846	8270C
Fluorene	100	75.2	ug/L	75		SW846	8270C
	100	77.5	ug/L	77	2.9	SW846	8270C
4-Chlorophenyl phenyl	100	77.2	ug/L	77		SW846	8270C
ether							
	100	78.7	ug/L	79	2.0	SW846	8270C
4-Nitroaniline	100	69.8	ug/L	70		SW846	8270C
	100	71.2	ug/L	71	2.0	SW846	8270C
4,6-Dinitro-	100	69.9	ug/L	70		SW846	8270C
2-methylphenol							
	100	76.5	ug/L	76	9.0	SW846	8270C
Diphenylamine+N-Nitrosodip	100	88.6	ug/L	89			8270C
	100	91.0	ug/L	91	2.6		8270C
4-Bromophenyl phenyl	100	80.0	ug/L	80		SW846	8270C
ether							
	100	83.0	ug/L	83	3.7	SW846	8270C
Hexachlorobenzene	100	81.5	ug/L	82			8270C
	100	83.8	ug/L	84	2.7	SW846	8270C
Pentachlorophenol	100	78.2	ug/L	78			8270C
	100	80.8	ug/L	81	3.3		8270C
Phenanthrene	100	74.3	ug/L	74			8270C
	100	76.3	ug/L	76	2.6		8270C
Anthracene	100	72.7	ug/L	73			8270C
	100	74.7	ug/L	75	2.7		8270C
Carbazole	100	74.3	ug/L	74			8270C
	100	76.8	ug/L	77	3.3		8270C
Fluoranthene	100	77.5	ug/L	78			8270C
	100	79.2	ug/L	79	2.2	SW846	8270C

## GC/MS Semivolatiles

Client Lot #...: SL1265 Work Order #...: MR3TT1AC-LCS Matrix.....: WATER LCS Lot-Sample#: F2D180000-120 MR3TT1AD-LCSD

	SPIKE	MEASURED		PERCENT			
PARAMETER	AMOUNT	AMOUNT	UNITS	RECOVERY	RPD	METHOI	O
Pyrene	100	75.2	ug/L	75		SW846	8270C
	100	76.1	ug/L	76	1.2	SW846	8270C
Butyl benzyl phthalate	100	73.0	ug/L	73		SW846	8270C
	100	74.1	ug/L	74	1.5	SW846	8270C
Benzo (a) anthracene	100	86.4	ug/L	86		SW846	8270C
	100	88.3	ug/L	88	2.2	SW846	8270C
3,3'-Dichlorobenzidine	100	54.6	ug/L	55		SW846	8270C
	100	56.3	ug/L	56	3.1	SW846	8270C
Chrysene	100	75.5	ug/L	75		SW846	8270C
	100	77.1	ug/L	77	2.2	SW846	8270C
bis(2-Ethylhexyl)	100	74.2	ug/L	74		SW846	8270C
phthalate							
	100	75.6	ug/L	76	2.0	SW846	8270C
Di-n-butyl phthalate	100	75.1	ug/L	75		SW846	8270C
	100	76.9	ug/L	77	2.3	SW846	8270C
Di-n-octyl phthalate	100	75.6	ug/L	76		SW846	8270C
	100	78.4	ug/L	78	3.5	SW846	8270C
Benzo(b) fluoranthene	100	81.1	ug/L	81		SW846	8270C
	100	81.3	ug/L	81	0.27	SW846	8270C
Benzo(k)fluoranthene	100	81.9	ug/L	82		SW846	8270C
	100	85.1	ug/L	85	3.8	SW846	8270C
Benzo(a)pyrene	100	72.8	ug/L	73		SW846	8270C
	100	75.0	ug/L	75	3.0	SW846	8270C
Indeno(1,2,3-cd)pyrene	100	84.6	ug/L	85		SW846	8270C
	100	85.6	ug/L	86	1.2	SW846	8270C
Benzo(ghi)perylene	100	82.4	ug/L	82		SW846	8270C
	100	84.9	ug/L	85	3.0	SW846	8270C
Dibenz (a, h) anthracene	100	80.9	ug/L	81		SW846	8270C
	100	83.8	ug/L	84	3.6	SW846	8270C
			PERCENT	RECOVERY			
SURROGATE			RECOVERY	LIMITS			
2-Fluorophenol			48	(29 - 62)			
			48	(29 - 62)			
Phenol-d5			31	(20 - 42)			
			31	(20 - 42)			
Nitrobenzene-d5			75	(51 - 98)			
100 CONTRACTOR 100 CO			76	(51 - 98)			
2-Fluorobiphenyl			75	(50 - 93)			
V V V V V V V V V V V V V V V V V V V			76	(50 - 93)			
2,4,6-Tribromophenol			84	(54 - 109			
			86	(54 - 109	)		

## GC/MS Semivolatiles

Client Lot #...: SL1265 Work Order #...: MR3TT1AC-LCS Matrix..... WATER

LCS Lot-Sample#: F2D180000-120 MR3TT1AD-LCSD

 SURROGATE
 RECOVERY
 LIMITS

 Terphenyl-d14
 88
 (60 - 121)

 89
 (60 - 121)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

## GC/MS Semivolatiles

Client Lot #...: F2D180412 Work Order #...: MR4VW1AC Matrix...... WATER

LCS Lot-Sample#: F2D200000-079

Prep Batch #...: 2111079

Dilution Factor: 1

	SPIKE	MEASURED		PERCENT	
PARAMETER	AMOUNT	AMOUNT	UNITS	RECOVERY	METHOD
Phenol	100	31.4	ug/L	31	SW846 8270C
bis(2-Chloroethyl)-	100	73.7	ug/L	74	SW846 8270C
ether					
2-Chlorophenol	100	74.7	ug/L	75	SW846 8270C
2-Methylphenol	100	66.9	ug/L	67	SW846 8270C
2,2'-oxybis	100	65.9	ug/L	66	SW846 8270C
(1-Chloropropane)					
N-Nitrosodi-n-propyl-	100	78.5	ug/L	78	SW846 8270C
amine					
Hexachloroethane	100	75.7	ug/L	76	SW846 8270C
Nitrobenzene	100	74.5	ug/L	74	SW846 8270C
Isophorone	100	69.8	ug/L	70	SW846 8270C
2-Nitrophenol	100	78.2	ug/L	78	SW846 8270C
2,4-Dimethylphenol	100	76.0	ug/L	76	SW846 8270C
bis(2-Chloroethoxy)	100	75.2	ug/L	75	SW846 8270C
methane					
2,4-Dichlorophenol	100	81.0	ug/L	81	SW846 8270C
1,2,4-Trichloro-	100	81.2	ug/L	81	SW846 8270C
benzene					
Naphthalene	100	76.6	ug/L	77	SW846 8270C
4-Chloroaniline	100	50.8	ug/L	51	SW846 8270C
Hexachlorobutadiene	100	82.7	ug/L	83	SW846 8270C
4-Chloro-3-methylphenol	100	79.3	ug/L	79	SW846 8270C
2-Methylnaphthalene	100	79.7	ug/L	80	SW846 8270C
Hexachlorocyclopenta-	100	104 a	ug/L	104	SW846 8270C
diene					
2,4,6-Trichloro-	100	84.1	ug/L	84	SW846 8270C
phenol					
2,4,5-Trichloro-	100	87.6	ug/L	88	SW846 8270C
phenol					
2-Nitroaniline	100	76.5	ug/L	77	SW846 8270C
Dimethyl phthalate	100	85.7	ug/L	86	SW846 8270C
Acenaphthylene	100	81.1	ug/L	81	SW846 8270C
2,6-Dinitrotoluene	100	84.4	ug/L	84	SW846 8270C

## GC/MS Semivolatiles

Client Lot #...: F2D180412 Work Order #...: MR4VW1AC Matrix.....: WATER

LCS Lot-Sample#: F2D200000-079

PARAMETER         AMOUNT         AMOUNT         UNITS         RECOVERY         METHOD           3-Nitroaniline         100         62.2         ug/L         62         SW846 8270C           Acenaphthene         100         80.1         ug/L         80         SW846 8270C           2,4-Dinitrophenol         100         85.9         ug/L         86         SW846 8270C           4-Nitrophenol         100         33.9         ug/L         34         SW846 8270C           Dibenzofuran         100         80.3         ug/L         80         SW846 8270C
Acenaphthene       100       80.1       ug/L       80       SW846 8270C         2,4-Dinitrophenol       100       85.9       ug/L       86       SW846 8270C         4-Nitrophenol       100       33.9       ug/L       34       SW846 8270C         Dibenzofuran       100       80.3       ug/L       80       SW846 8270C
Acenaphthene       100       80.1       ug/L       80       SW846 8270C         2,4-Dinitrophenol       100       85.9       ug/L       86       SW846 8270C         4-Nitrophenol       100       33.9       ug/L       34       SW846 8270C         Dibenzofuran       100       80.3       ug/L       80       SW846 8270C
4-Nitrophenol 100 33.9 ug/L 34 SW846 8270C Dibenzofuran 100 80.3 ug/L 80 SW846 8270C
Dibenzofuran 100 80.3 ug/L 80 SW846 8270C
2,4-Dinitrotoluene 100 85.1 ug/L 85 SW846 8270C
Diethyl phthalate 100 83.7 ug/L 84 SW846 8270C
4-Chlorophenyl phenyl 100 85.8 ug/L 86 SW846 8270C
ether
Fluorene 100 83.4 ug/L 83 SW846 8270C
4-Nitroaniline 100 77.2 ug/L 77 SW846 8270C
4,6-Dinitro- 100 84.5 ug/L 84 SW846 8270C
2-methylphenol
N-Nitrosodiphenylamine 100 99.7 ug/L 100 SW846 8270C
4-Bromophenyl phenyl 100 88.7 ug/L 89 SW846 8270C
ether
Hexachlorobenzene 100 91.9 ug/L 92 SW846 8270C
Pentachlorophenol 100 90.9 ug/L 91 SW846 8270C
Phenanthrene 100 81.5 ug/L 82 SW846 8270C
Anthracene 100 80.0 ug/L 80 SW846 8270C
Carbazole 100 81.6 ug/L 82 SW846 8270C
Di-n-butyl phthalate 100 81.2 ug/L 81 SW846 8270C
Fluoranthene 100 85.8 ug/L 86 SW846 8270C
Pyrene 100 79.8 ug/L 80 SW846 8270C
Butyl benzyl phthalate 100 76.3 ug/L 76 SW846 8270C
3,3'-Dichlorobenzidine 100 61.3 ug/L 61 SW846 8270C
Benzo (a) anthracene 100 94.1 ug/L 94 SW846 8270C
Chrysene 100 81.7 ug/L 82 SW846 8270C
bis(2-Ethylhexyl) 100 80.4 ug/L 80 SW846 8270C
phthalate
Di-n-octyl phthalate 100 82.0 ug/L 82 SW846 8270C
Benzo (b) fluoranthene 100 86.2 ug/L 86 SW846 8270C
Benzo(k) fluoranthene 100 91.3 ug/L 91 SW846 8270C
Benzo (a) pyrene 100 83.4 ug/L 83 SW846 8270C
Indeno (1, 2, 3-cd) pyrene 100 94.6 ug/L 95 SW846 8270C
Dibenz (a, h) anthracene 100 91.3 ug/L 91 SW846 8270C
Benzo(ghi)perylene 100 92.6 ug/L 93 SW846 8270C

## GC/MS Semivolatiles

Client Lot #...: F2D180412 Work Order #...: MR4VW1AC Matrix...... WATER

LCS Lot-Sample#: F2D200000-079

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
3-Methylphenol &	100	68.6	ug/L	69	SW846 8270C
4-Methylphenol					
1,2-Dichlorobenzene	100	78.0	ug/L	78	SW846 8270C
1,3-Dichlorobenzene	100	77.2	ug/L	77	SW846 8270C
1,4-Dichlorobenzene	100	76.4	ug/L	76	SW846 8270C
2-Chloronaphthalene	100	79.3	ug/L	79	SW846 8270C
		PERCENT	RECOVERY		
SURROGATE		RECOVERY	LIMITS		
2-Fluorophenol		51	(29 - 62)		
Phenol-d5		33	(20 - 42)		
Nitrobenzene-d5		79	(51 - 98)		
2-Fluorobiphenyl		83	(50 - 93)		
2,4,6-Tribromophenol		94	(54 - 109)		
Terphenyl-d14		94	(60 - 121)		

# NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

a Spiked analyte recovery is outside stated control limits.

## GC/MS Semivolatiles

Client Lot #...: F2D180412 Work Order #...: MR3E51AD-MS Matrix.....: WATER

MS Lot-Sample #: F2D180412-003 MR3E51AE-MSD

 Date Sampled...:
 04/16/12
 Date Received...:
 04/18/12

 Prep Date.....:
 04/20/12
 Analysis Date...:
 04/25/12

Prep Batch #...: 2111079

Dilution Factor: 1

	SAMPLE	SPIKE	MEASRD		PERCNT			
PARAMETER	AMOUNT	AMT	AMOUNT	UNITS	RECVRY	RPD	METHOI	)
Phenol	ND	187	82.8	ug/L	44		SW846	8270C
	ND	194	89.4	ug/L	46	7.7	SW846	8270C
bis(2-Chloroethyl)-	ND	187	136	ug/L	73		SW846	8270C
ether				-				
	ND	194	147	ug/L	76	7.7	SW846	8270C
2-Chlorophenol	ND	187	144	ug/L	77		SW846	8270C
	ND	194	154	ug/L	80	7.1	SW846	8270C
2-Methylphenol	ND	187	135	ug/L	72		SW846	8270C
	ND	194	147	ug/L	76	8.2	SW846	8270C
3-Methylphenol & 4-Methylphenol	ND	187	146	ug/L	78		SW846	8270C
	ND	194	158	ug/L	82	7.8	SW846	8270C
2,2'-oxybis (1-Chloropropane)	ND	187	122	ug/L	65		SW846	8270C
	ND	194	131	ug/L	67	6.6	SW846	8270C
N-Nitrosodi-n-propyl- amine	ND	187	145	ug/L	77		SW846	8270C
	ND	194	156	ug/L	80	7.1	SW846	8270C
Hexachloroethane	ND	187	139	ug/L	74			8270C
	ND	194	154	ug/L	79	10	SW846	8270C
Nitrobenzene	ND	187	137	ug/L	73			8270C
	ND	194	150	ug/L	77	8.8	SW846	
Isophorone	ND	187	128	ug/L	68			8270C
	ND	194	138	ug/L	71	7.7	SW846	
2-Nitrophenol	ND	187	146	ug/L	78			8270C
	ND	194	159	ug/L	82	9.0	SW846	
2,4-Dimethylphenol	ND	187	142	ug/L	76			8270C
	ND	194	154	ug/L	80	8.6	SW846	
<pre>bis(2-Chloroethoxy) methane</pre>	ND	187	139	ug/L	74		SW846	8270C
	ND	194	150	ug/L	77	7.5	SW846	8270C
2,4-Dichlorophenol	ND	187	151	ug/L	81			8270C
	ND	194	164	ug/L	85	7.9	SW846	8270C

## GC/MS Semivolatiles

Client Lot #...: F2D180412 Work Order #...: MR3E51AD-MS Matrix..... WATER

MS Lot-Sample #: F2D180412-003 MR3E51AE-MSD

	SAMPLE	SPIKE	MEASRD		PERCNT		
PARAMETER	AMOUNT	AMT	AMOUNT	UNITS	_ RECVRY	RPD	METHOD
1,2,4-Trichloro- benzene	ND	187	148	ug/L	79		SW846 8270C
Delizene	ND	194	164	ug/L	85	9.8	SW846 8270C
	112		101	49, 11	00	3.0	5W510 52700
Naphthalene	ND	187	142	ug/L	76		SW846 8270C
-,-	ND	194	154	ug/L	79	8.3	SW846 8270C
4-Chloroaniline	ND	187	96.4	ug/L	51		SW846 8270C
	ND	194	85.4	ug/L	44	12	SW846 8270C
Hexachlorobutadiene	ND	187	153	ug/L	82		SW846 8270C
	ND	194	168	ug/L	87	9.3	SW846 8270C
4-Chloro-3-methylphenol	ND	187	152	ug/L	81		SW846 8270C
	ND	194	161	ug/L	83	5.4	SW846 8270C
2-Methylnaphthalene	ND	187	147	ug/L	79		SW846 8270C
	ND	194	160	ug/L	83	8.7	SW846 8270C
Hexachlorocyclopenta- diene	ND	187	185	ug/L	99		SW846 8270C
	ND	194	211	ug/L	109	13	SW846 8270C
2,4,6-Trichloro- phenol	ND	187	155	ug/L	83		SW846 8270C
	ND	194	168	ug/L	87	8.5	SW846 8270C
2,4,5-Trichloro- phenol	ND	187	163	ug/L	87		SW846 8270C
	ND	194	176	ug/L	91	7.2	SW846 8270C
2-Nitroaniline	ND	187	144	ug/L	77		SW846 8270C
	ND	194	154	ug/L	79	6.9	SW846 8270C
Dimethyl phthalate	ND	187	157	ug/L	84		SW846 8270C
	ND	194	170	ug/L	88	7.9	SW846 8270C
Acenaphthylene	ND	187	151	ug/L	81		SW846 8270C
	ND	194	163	ug/L	84	8.0	SW846 8270C
2,6-Dinitrotoluene	ND	187	158	ug/L	84		SW846 8270C
	ND	194	169	ug/L	87	6.6	
3-Nitroaniline	ND	187	126	ug/L	67		SW846 8270C
	ND	194	124	ug/L	64	1.4	
Acenaphthene	ND	187	148	ug/L	79	20.00	SW846 8270C
	ND	194	161	ug/L	83	8.8	SW846 8270C
2,4-Dinitrophenol	ND	187	150	ug/L	80	4.5	SW846 8270C
	ND	194	171	ug/L	88	13	SW846 8270C
4-Nitrophenol	ND	187	93.8	ug/L	50		SW846 8270C
	ND	194	99.4	ug/L	51	5.8	SW846 8270C

## GC/MS Semivolatiles

Client Lot #...: F2D180412 Work Order #...: MR3E51AD-MS Matrix..... WATER

MS Lot-Sample #: F2D180412-003 MR3E51AE-MSD

	SAMPLE	SPIKE	MEASRD		PERCNT		
PARAMETER	AMOUNT	AMT	AMOUNT	UNITS	RECVRY	RPD	METHOD
Dibenzofuran	ND	107	149	/T	79		CHO/C 0270C
Dibenzoluran	ND	187 194	161	ug/L	83	7.8	SW846 8270C SW846 8270C
2,4-Dinitrotoluene	ND	187	160	ug/L ug/L	85	/ - 0	SW846 8270C
2,4-Difficiolordene	ND	194	171	ug/L ug/L	88	6.4	SW846 8270C
Diethyl phthalate	ND	187	157	ug/L ug/L	84	<b>U - 4</b>	SW846 8270C
Diethyi phthalate	ND	194	166	ug/L ug/L	86	5.5	SW846 8270C
4-Chlorophenyl phenyl	ND	187	160	ug/L ug/L	86	J.J	SW846 8270C
ether	MD	10 //	100	ug/Li	00		5W040 02/0C
echei	ND	194	172	ug/L	89	7.1	SW846 8270C
	ND	1)1	1/2	ug/II	0 )	/ • I	5W040 0270C
Fluorene	ND	187	155	ug/L	83		SW846 8270C
	ND	194	167	ug/L	86	7.4	SW846 8270C
4-Nitroaniline	ND	187	148	ug/L	79		SW846 8270C
1 11-0-0411-1-10	ND	194	148	ug/L	76	0.0	SW846 8270C
4,6-Dinitro-	ND	187	153	ug/L	82		SW846 8270C
2-methylphenol				-5, -			
	ND	194	170	ug/L	88	10	SW846 8270C
				- J" —			
N-Nitrosodiphenylamine	ND	187	184	ug/L	98		SW846 8270C
	ND	194	201	ug/L	104	8.7	SW846 8270C
4-Bromophenyl phenyl	ND	187	165	ug/L	88		SW846 8270C
ether							
	ND	194	180	ug/L	93	8.8	SW846 8270C
Hexachlorobenzene	ND	187	170	ug/L	91		SW846 8270C
	ND	194	186	ug/L	96	8.8	SW846 8270C
Pentachlorophenol	ND	187	170	ug/L	91		SW846 8270C
	ND	194	185	ug/L	96	8.4	SW846 8270C
Phenanthrene	ND	187	152	ug/L	81		SW846 8270C
	ND	194	163	ug/L	84	7.2	SW846 8270C
Anthracene	ND	187	150	ug/L	80		SW846 8270C
	ND	194	162	ug/L	83	7.6	SW846 8270C
Carbazole	ND	187	154	ug/L	82		SW846 8270C
	ND	194	162	ug/L	84	5.6	SW846 8270C
Di-n-butyl phthalate	ND	187	152	ug/L	81		SW846 8270C
	ND	194	164	ug/L	84	7.0	SW846 8270C
Fluoranthene	ND	187	160	ug/L	86		SW846 8270C
	ND	194	174	ug/L	90	8.1	SW846 8270C
Pyrene	ND	187	148	ug/L	79		SW846 8270C
	ND	194	158	ug/L	81	6.2	SW846 8270C
Butyl benzyl phthalate	ND	187	143	ug/L	77		SW846 8270C
	ND	194	153	ug/L	79	6.5	SW846 8270C

## GC/MS Semivolatiles

 Client Lot #...:
 F2D180412
 Work Order #...:
 MR3E51AD-MS
 Matrix......
 WATER

 MS Lot-Sample #:
 F2D180412-003
 MR3E51AE-MSD

	SAMPLE	SPIKE	MEASRD		PERCNT		
PARAMETER	AMOUNT	AMT	AMOUNT	UNITS	RECVRY	RPD	METHOD
				- 011110			
3,3'-Dichlorobenzidine	ND	187	116	ug/L	62		SW846 8270C
0,0 2101101020111101110	ND	194	112	ug/L	58	3.6	SW846 8270C
Benzo (a) anthracene	ND	187	176	ug/L	94	7.7.7	SW846 8270C
	ND	194	188	ug/L	97	6.7	SW846 8270C
Chrysene	ND	187	153	ug/L	82		SW846 8270C
1	ND	194	162	ug/L	83	5.5	SW846 8270C
bis(2-Ethylhexyl)	ND	187	146	ug/L	78		SW846 8270C
phthalate				-			
-	ND	194	156	ug/L	80	6.2	SW846 8270C
				3.			
Di-n-octyl phthalate	ND	187	152	ug/L	81		SW846 8270C
-	ND	194	161	ug/L	83	6.0	SW846 8270C
Benzo (b) fluoranthene	ND	187	166	ug/L	89		SW846 8270C
	ND	194	176	ug/L	91	5.5	SW846 8270C
Benzo(k) fluoranthene	ND	187	164	ug/L	88		SW846 8270C
	ND	194	179	ug/L	92	8.7	SW846 8270C
Benzo (a) pyrene	ND	187	157	ug/L	84		SW846 8270C
	ND	194	168	ug/L	87	7.3	SW846 8270C
Indeno (1, 2, 3-cd) pyrene	ND	187	180	ug/L	96		SW846 8270C
	ND	194	196	ug/L	101	8.3	SW846 8270C
Dibenz (a, h) anthracene	ND	187	170	ug/L	91		SW846 8270C
	ND	194	184	ug/L	95	7.6	SW846 8270C
Benzo(ghi)perylene	ND	187	173	ug/L	93		SW846 8270C
	ND	194	188	ug/L	97	8.1	SW846 8270C
1,2-Dichlorobenzene	ND	187	144	ug/L	77		SW846 8270C
	ND	194	156	ug/L	80	7.7	SW846 8270C
1,3-Dichlorobenzene	ND	187	142	ug/L	76		SW846 8270C
	ND	194	154	ug/L	80	8.6	SW846 8270C
1,4-Dichlorobenzene	ND	187	141	ug/L	75		SW846 8270C
	ND	194	154	ug/L	79	8.6	SW846 8270C
2-Chloronaphthalene	ND	187	147	ug/L	78		SW846 8270C
	ND	194	160	ug/L	83	8.7	SW846 8270C
			PERCENT		RECOVERY		
SURROGATE			RECOVERY		LIMITS	_	
2-Fluorophenol			63		(19 - 86)		
			65		(19 - 86)		
Phenol-d5			47		(10 - 71)		
			50		(10 - 71)		
Nitrobenzene-d5			78		(44 - 100)		
			81		(44 - 100)		

## GC/MS Semivolatiles

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorobiphenyl	83	(44 - 99)
	86	(44 - 99)
2,4,6-Tribromophenol	95	(43 - 115)
	100	(43 - 115)
Terphenyl-d14	94	(45 - 131)
	96	(45 - 131)

# NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

# **Phenols**

SDG #SL1265 140 of 172

# Client Sample ID: B2KK55

## GC Semivolatiles

Lot-Sample #...: F2D170442-001 Work Order #...: MR2TE1AC Matrix...... WATER

Prep Batch #...: 2110096

Dilution Factor: 1 Method.....: SW846 8040A

Dilucion Faccor. 1	raechod Swo40 0040A						
		REPORTIN					
PARAMETER	RESULT	LIMIT	UNITS	_ MDL			
2-Chlorophenol	ND	5.0	ug/L	2.2			
4-Chloro-3-methylphenol	ND	5.0	ug/L	2.4			
3-Methylphenol &	ND	5.0	ug/L	2.2			
4-Methylphenol							
2-Methylphenol	ND	5.0	ug/L	2.2			
2,4-Dichlorophenol	ND	5.0	ug/L	2.1			
2,6-Dichlorophenol	ND	5.0	ug/L	2.1			
2,4-Dimethylphenol	ND	5.0	ug/L	2.1			
2,4-Dinitrophenol	ND	5.0	ug/L	2.4			
4,6-Dinitro-	ND	5.0	ug/L	2.2			
2-methylphenol							
Dinoseb	ND	5.0	ug/L	2.4			
2-Nitrophenol	ND	5.0	ug/L	2.3			
4-Nitrophenol	ND	5.0	ug/L	2.2			
Pentachlorophenol	ND	5.0	ug/L	2.4			
Phenol	ND	5.0	ug/L	2.3			
2,3,4,6-Tetrachlorophenol	ND	5.0	ug/L	2.0			
2,4,5-Trichloro-	ND	5.0	ug/L	2.2			
phenol							
2,4,6-Trichloro-	ND	5.0	ug/L	2.2			
phenol							
	PERCENT	RECOVERY					
SURROGATE	RECOVERY	LIMITS					
2,4,6-Tribromophenol	91	(54 - 13	39)				
2-Fluorophenol	79	(34 - 12	21)				

# Client Sample ID: B2KK67

## GC Semivolatiles

Lot-Sample #...: F2D170442-002 Work Order #...: MR2TG1AC Matrix..... WATER

Date Sampled...: 04/12/12 Date Received..: 04/17/12 Prep Date....: 04/19/12 Analysis Date..: 04/24/12

Prep Batch #...: 2110096

Dilution Factor: 1	Method				
		REPORTIN	IG		
PARAMETER	RESULT	LIMIT	UNITS	MDL	
2-Chlorophenol	ND	5.0	ug/L	2.2	
4-Chloro-3-methylphenol	ND	5.0	ug/L	2.4	
3-Methylphenol &	ND	5.0	ug/L	2.2	
4-Methylphenol					
2-Methylphenol	ND	5.0	ug/L	2.2	
2,4-Dichlorophenol	ND	5.0	ug/L	2.1	
2,6-Dichlorophenol	ND	5.0	ug/L	2.1	
2,4-Dimethylphenol	ND	5.0	ug/L	2.1	
2,4-Dinitrophenol	ND	5.0	ug/L	2.4	
4,6-Dinitro-	ND	5.0	ug/L	2.2	
2-methylphenol					
Dinoseb	ND	5.0	ug/L	2.4	
2-Nitrophenol	ND	5.0	ug/L	2.3	
4-Nitrophenol	ND	5.0	ug/L	2.2	
Pentachlorophenol	ND	5.0	ug/L	2.4	
Phenol	ND	5.0	ug/L	2.3	
2,3,4,6-Tetrachlorophenol	ND	5.0	ug/L	2.0	
2,4,5-Trichloro-	ND	5.0	ug/L	2.2	
phenol					
2,4,6-Trichloro-	ND	5.0	ug/L	2.2	
phenol					
	PERCENT	RECOVERY			
SURROGATE	RECOVERY	LIMITS			
2,4,6-Tribromophenol	90	(54 - 13	39)		
2-Fluorophenol	77	(34 - 12	11)		

TestAmerica Laboratories, Inc.

# Client Sample ID: B2KK60

## GC Semivolatiles

Lot-Sample #...: F2D170442-003 Work Order #...: MR2TH1AC Matrix.... WATER

**Date Sampled...:** 04/13/12 Date Received..: 04/17/12 Prep Date....: 04/19/12 Analysis Date..: 04/24/12

Prep Batch #...: 2110096

Dilution Factor: 1	Method	: SW846 80	040A		
		REPORTIN	1G		
PARAMETER	RESULT	LIMIT	UNITS	MDL	
2-Chlorophenol	ND	5.0	ug/L	2.2	
4-Chloro-3-methylphenol	ND	5.0	ug/L	2.4	
3-Methylphenol &	ND	5.0	ug/L	2.2	
4-Methylphenol					
2-Methylphenol	ND	5.0	ug/L	2.2	
2,4-Dichlorophenol	ND	5.0	ug/L	2.1	
2,6-Dichlorophenol	ND	5.0	ug/L	2.1	
2,4-Dimethylphenol	ND	5.0	ug/L	2.1	
2,4-Dinitrophenol	ND	5.0	ug/L	2.4	
4,6-Dinitro-	ND	5.0	ug/L	2.2	
2-methylphenol					
Dinoseb	ND	5.0	ug/L	2.4	
2-Nitrophenol	ND	5.0	ug/L	2.3	
4-Nitrophenol	ND	5.0	ug/L	2.2	
Pentachlorophenol	ND	5.0	ug/L	2.4	
Phenol	ND	5.0	ug/L	2.3	
2,3,4,6-Tetrachlorophenol	ND	5.0	ug/L	2.0	
2,4,5-Trichloro-	ND	5.0	ug/L	2.2	
phenol					
2,4,6-Trichloro-	ND	5.0	ug/L	2.2	
phenol					
	PERCENT	RECOVERY	Z		
SURROGATE	RECOVERY	LIMITS			
2,4,6-Tribromophenol	83	(54 - 13	39)		
2-Fluorophenol	71	(34 - 12)	21)		

TestAmerica Laboratories, Inc.

# Client Sample ID: B2KK12

## GC Semivolatiles

Lot-Sample #...: F2D170442-004 Work Order #...: MR2TJ1AC Matrix...... WATER

Prep Batch #...: 2110096

Dilution Factor: 1 Method.....: SW846 8040A

REPORTING   RESULT   LIMIT   UNITS   MDL
2-Chlorophenol       ND       5.0       ug/L       2.2         4-Chloro-3-methylphenol       ND       5.0       ug/L       2.4         3-Methylphenol &       ND       5.0       ug/L       2.2         4-Methylphenol       ND       5.0       ug/L       2.2         2-Methylphenol       ND       5.0       ug/L       2.2
4-Chloro-3-methylphenol ND 5.0 ug/L 2.4 3-Methylphenol & ND 5.0 ug/L 2.2 4-Methylphenol 2-Methylphenol ND 5.0 ug/L 2.2
3-Methylphenol & ND 5.0 ug/L 2.2 4-Methylphenol ND 5.0 ug/L 2.2 2-Methylphenol ND 5.0 ug/L 2.2
4-Methylphenol 2-Methylphenol ND 5.0 ug/L 2.2
2-Methylphenol ND 5.0 ug/L 2.2
2.4-Dichlorophenol ND 5.0 ug/T 2.1
-,
2,6-Dichlorophenol ND 5.0 ug/L 2.1
2,4-Dimethylphenol ND 5.0 ug/L 2.1
2,4-Dinitrophenol ND 5.0 ug/L 2.4
4,6-Dinitro- ND 5.0 ug/L 2.2
2-methylphenol
Dinoseb ND 5.0 ug/L 2.4
2-Nitrophenol ND 5.0 ug/L 2.3
4-Nitrophenol ND 5.0 ug/L 2.2
Pentachlorophenol ND 5.0 ug/L 2.4
Phenol ND 5.0 ug/L 2.3
2,3,4,6-Tetrachlorophenol ND 5.0 ug/L 2.0
2,4,5-Trichloro- ND 5.0 ug/L 2.2
phenol
2,4,6-Trichloro- ND 5.0 ug/L 2.2
phenol
PERCENT RECOVERY
SURROGATE RECOVERY LIMITS
2,4,6-Tribromophenol 91 (54 - 139)
2-Fluorophenol 73 (34 - 121)

## Client Sample ID: B2KKH1

#### GC Semivolatiles

Lot-Sample #...: F2D170442-005 Work Order #...: MR2TK1AC Matrix...... WATER

Prep Batch #...: 2110096

Dilution Factor: 1 Method.....: SW846 8040A

Dilucion Factor. 1	Method Swo40 0040A						
		REPORTIN					
PARAMETER	RESULT	LIMIT	UNITS	MDL			
2-Chlorophenol	ND	5.0	ug/L	2.2			
4-Chloro-3-methylphenol	ND	5.0	ug/L	2.4			
3-Methylphenol &	ND	5.0	ug/L	2.2			
4-Methylphenol							
2-Methylphenol	ND	5.0	ug/L	2.2			
2,4-Dichlorophenol	ND	5.0	ug/L	2.1			
2,6-Dichlorophenol	ND	5.0	ug/L	2.1			
2,4-Dimethylphenol	ND	5.0	ug/L	2.1			
2,4-Dinitrophenol	ND	5.0	ug/L	2.4			
4,6-Dinitro-	ND	5.0	ug/L	2.2			
2-methylphenol							
Dinoseb	ND	5.0	ug/L	2.4			
2-Nitrophenol	ND	5.0	ug/L	2.3			
4-Nitrophenol	ND	5.0	ug/L	2.2			
Pentachlorophenol	ND	5.0	ug/L	2.4			
Phenol	ND	5.0	ug/L	2.3			
2,3,4,6-Tetrachlorophenol	ND	5.0	ug/L	2.0			
2,4,5-Trichloro-	ND	5.0	ug/L	2.2			
phenol							
2,4,6-Trichloro-	ND	5.0	ug/L	2.2			
phenol							
	PERCENT	RECOVERY	7				
SURROGATE	RECOVERY	LIMITS					
2,4,6-Tribromophenol	82	(54 - 13	39)				
2-Fluorophenol	75	(34 - 12	21)				

## Client Sample ID: B2KK82

#### GC Semivolatiles

Lot-Sample #...: F2D170442-006 Work Order #...: MR2TL1AC Matrix...... WATER

Prep Batch #...: 2110096

Dilution Factor: 1	Method	: SW846 80	.: SW846 8040A				
		REPORTIN	1G				
PARAMETER	RESULT	LIMIT	UNITS	MDL			
2-Chlorophenol	ND	5.0	ug/L	2.2			
4-Chloro-3-methylphenol	ND	5.0	ug/L	2.4			
3-Methylphenol &	ND	5.0	ug/L	2.2			
4-Methylphenol							
2-Methylphenol	ND	5.0	ug/L	2.2			
2,4-Dichlorophenol	ND	5.0	ug/L	2.1			
2,6-Dichlorophenol	ND	5.0	ug/L	2.1			
2,4-Dimethylphenol	ND	5.0	ug/L	2.1			
2,4-Dinitrophenol	ND	5.0	ug/L	2.4			
4,6-Dinitro-	ND	5.0	ug/L	2.2			
2-methylphenol							
Dinoseb	ND	5.0	ug/L	2.4			
2-Nitrophenol	ND	5.0	ug/L	2.3			
4-Nitrophenol	ND	5.0	ug/L	2.2			
Pentachlorophenol	ND	5.0	ug/L	2.4			
Phenol	ND	5.0	ug/L	2.3			
2,3,4,6-Tetrachlorophenol	ND	5.0	ug/L	2.0			
2,4,5-Trichloro-	ND	5.0	ug/L	2.2			
phenol							
2,4,6-Trichloro-	ND	5.0	ug/L	2.2			
phenol							
	PERCENT	RECOVERY	7				
SURROGATE	RECOVERY	LIMITS					
2,4,6-Tribromophenol	90	(54 - 13	39)				
2-Fluorophenol	76	(34 - 12					
- 113010Pilolio1	, 0	(01 12	/				

## Client Sample ID: B2KKH0

## GC Semivolatiles

Lot-Sample #...: F2D170442-007 Work Order #...: MR2TM1AC Matrix...... WATER

Prep Batch #...: 2110096

Dilution Factor: 1 Method.....: SW846 8040A

DILUCION LUCCOL.	200100111111111111111111111111111111111						
		REPORTIN	IG				
PARAMETER	RESULT	LIMIT	UNITS	MDL			
2-Chlorophenol	ND	5.0	ug/L	2.2			
4-Chloro-3-methylphenol	ND	5.0	ug/L	2.4			
3-Methylphenol &	ND	5.0	ug/L	2.2			
4-Methylphenol							
2-Methylphenol	ND	5.0	ug/L	2.2			
2,4-Dichlorophenol	ND	5.0	ug/L	2.1			
2,6-Dichlorophenol	ND	5.0	ug/L	2.1			
2,4-Dimethylphenol	ND	5.0	ug/L	2.1			
2,4-Dinitrophenol	ND	5.0	ug/L	2.4			
4,6-Dinitro-	ND	5.0	ug/L	2.2			
2-methylphenol							
Dinoseb	ND	5.0	ug/L	2.4			
2-Nitrophenol	ND	5.0	ug/L	2.3			
4-Nitrophenol	ND	5.0	ug/L	2.2			
Pentachlorophenol	ND	5.0	ug/L	2.4			
Phenol	ND	5.0	ug/L	2.3			
2,3,4,6-Tetrachlorophenol	ND	5.0	ug/L	2.0			
2,4,5-Trichloro-	ND	5.0	ug/L	2.2			
phenol							
2,4,6-Trichloro-	ND	5.0	ug/L	2.2			
phenol							
	PERCENT	RECOVERY					
SURROGATE	RECOVERY	LIMITS					
2,4,6-Tribromophenol	95	(54 - 13	39)				
2-Fluorophenol	77	(34 - 12	21)				

## Client Sample ID: B2KK17

#### GC Semivolatiles

Lot-Sample #...: F2D170442-008 Work Order #...: MR2TN1AC Matrix...... WATER

Prep Batch #...: 2110096

Dilution Factor: 1 Method.....: SW846 8040A

Method Swodo oudon						
	REPORTIN	IG				
RESULT	LIMIT	UNITS	MDL			
ND	5.0	ug/L	2.2			
ND	5.0	ug/L	2.4			
ND	5.0	ug/L	2.2			
ND	5.0	ug/L	2.2			
ND	5.0	ug/L	2.1			
ND	5.0	ug/L	2.1			
ND	5.0	ug/L	2.1			
ND	5.0	ug/L	2.4			
ND	5.0	ug/L	2.2			
ND	5.0	ug/L	2.4			
ND	5.0	ug/L	2.3			
ND	5.0	ug/L	2.2			
ND	5.0	ug/L	2.4			
ND	5.0	ug/L	2.3			
ND	5.0	ug/L	2.0			
ND	5.0	ug/L	2.2			
ND	5.0	ug/L	2.2			
PERCENT	RECOVERY					
RECOVERY	LIMITS					
93	(54 - 13)	9)				
78	(34 - 12	1)				
	RESULT ND	REPORTING  RESULT  ND  ND  S.0  S.0  S.0  ND  S.0  S.0  ND  S.0  S.0  ND  S.0  S.0  S.0  S.0  S.0  S.0  S.0  S.	RESULT LIMIT UNITS  ND 5.0 ug/L  ND 5.0 ug/L			

## Client Sample ID: B2KK02

#### GC Semivolatiles

Lot-Sample #...: F2D170442-009 Work Order #...: MR2TP1AC Matrix..... WATER

**Date Sampled...:** 04/12/12 Date Received..: 04/17/12 Prep Date....: 04/19/12 Analysis Date..: 04/25/12

Prep Batch #...: 2110096

Method • SW846 8040A

Dilution Factor: 1	Method SW846 8040A						
		REPORTIN	G				
PARAMETER	RESULT	LIMIT	UNITS	MDL			
2-Chlorophenol	ND	5.0	ug/L	2.2			
4-Chloro-3-methylphenol	ND	5.0	ug/L	2.4			
3-Methylphenol &	ND	5.0	ug/L	2.2			
4-Methylphenol							
2-Methylphenol	ND	5.0	ug/L	2.2			
2,4-Dichlorophenol	ND	5.0	ug/L	2.1			
2,6-Dichlorophenol	ND	5.0	ug/L	2.1			
2,4-Dimethylphenol	ND	5.0	ug/L	2.1			
2,4-Dinitrophenol	ND	5.0	ug/L	2.4			
4,6-Dinitro-	ND	5.0	ug/L	2.2			
2-methylphenol							
Dinoseb	ND	5.0	ug/L	2.4			
2-Nitrophenol	ND	5.0	ug/L	2.3			
4-Nitrophenol	ND	5.0	ug/L	2.2			
Pentachlorophenol	ND	5.0	ug/L	2.4			
Phenol	ND	5.0	ug/L	2.3			
2,3,4,6-Tetrachlorophenol	ND	5.0	ug/L	2.0			
2,4,5-Trichloro-	ND	5.0	ug/L	2.2			
phenol							
2,4,6-Trichloro-	ND	5.0	ug/L	2.2			
phenol							
	PERCENT	RECOVERY					
SURROGATE	RECOVERY	LIMITS					
2,4,6-Tribromophenol	90	(54 - 13					
2-Fluorophenol	76	(34 - 12)	1)				

TestAmerica Laboratories, Inc.

## Client Sample ID: B2KK34

#### GC Semivolatiles

Lot-Sample #...: F2D170442-010 Work Order #...: MR2TQ1AC Matrix..... WATER

Prep Batch #...: 2110096

Dilution Factor: 1 Method.....: SW846 8040A

Difficion ractor.	Mechod Swoto ootok						
		REPORTING	G				
PARAMETER	RESULT	LIMIT	UNITS	MDL			
2-Chlorophenol	ND	5.0	ug/L	2.2			
4-Chloro-3-methylphenol	ND	5.0	ug/L	2.4			
3-Methylphenol &	ND	5.0	ug/L	2.2			
4-Methylphenol							
2-Methylphenol	ND	5.0	ug/L	2.2			
2,4-Dichlorophenol	ND	5.0	ug/L	2.1			
2,6-Dichlorophenol	ND	5.0	ug/L	2.1			
2,4-Dimethylphenol	ND	5.0	ug/L	2.1			
2,4-Dinitrophenol	ND	5.0	ug/L	2.4			
4,6-Dinitro-	ND	5.0	ug/L	2.2			
2-methylphenol							
Dinoseb	ND	5.0	ug/L	2.4			
2-Nitrophenol	ND	5.0	ug/L	2.3			
4-Nitrophenol	ND	5.0	ug/L	2.2			
Pentachlorophenol	ND	5.0	ug/L	2.4			
Phenol	ND	5.0	ug/L	2.3			
2,3,4,6-Tetrachlorophenol	ND	5.0	ug/L	2.0			
2,4,5-Trichloro-	ND	5.0	ug/L	2.2			
phenol							
2,4,6-Trichloro-	ND	5.0	ug/L	2.2			
phenol							
	PERCENT	RECOVERY					
SURROGATE	RECOVERY	LIMITS					
2,4,6-Tribromophenol	95	(54 - 13)	9)				
2-Fluorophenol	80	(34 - 12)	1)				

## Client Sample ID: B2KK39

## GC Semivolatiles

Lot-Sample #: F2D170442-011	Work Order #: MR2TR1AC	Matrix WATER
Date Sampled: 04/13/12	Date Received: 04/17/12	
<pre>Prep Date: 04/19/12</pre>	Analysis Date: 04/25/12	

Prep Batch #...: 2110096

Dilution Factor: 1 Method.....: SW846 8040A

		REPORTING		
PARAMETER	RESULT	LIMIT	UNITS	MDL
2-Chlorophenol	ND	5.0	ug/L	2.2
4-Chloro-3-methylphenol	ND	5.0	ug/L	2.4
3-Methylphenol &	ND	5.0	ug/L	2.2
4-Methylphenol				
2-Methylphenol	ND	5.0	ug/L	2.2
2,4-Dichlorophenol	ND	5.0	ug/L	2.1
2,6-Dichlorophenol	ND	5.0	ug/L	2.1
2,4-Dimethylphenol	ND	5.0	ug/L	2.1
2,4-Dinitrophenol	ND	5.0	ug/L	2.4
4,6-Dinitro-	ND	5.0	ug/L	2.2
2-methylphenol				
Dinoseb	ND	5.0	ug/L	2.4
2-Nitrophenol	ND	5.0	ug/L	2.3
4-Nitrophenol	ND	5.0	ug/L	2.2
Pentachlorophenol	ND	5.0	ug/L	2.4
Phenol	ND	5.0	ug/L	2.3
2,3,4,6-Tetrachlorophenol	ND	5.0	ug/L	2.0
2,4,5-Trichloro-	ND	5.0	ug/L	2.2
phenol				
2,4,6-Trichloro-	ND	5.0	ug/L	2.2
phenol				
	PERCENT	RECOVERY		
SURROGATE	RECOVERY	LIMITS	<u>_</u>	
2,4,6-Tribromophenol	3.7 *	(54 - 139)		
2-Fluorophenol	2.3 *	(34 - 121)		

## NOTE(S):

<sup>\*</sup> Surrogate recovery is outside stated control limits.

#### METHOD BLANK REPORT

#### GC Semivolatiles

Client Lot #...: SL1265 Work Order #...: MR3591AA Matrix..... WATER

MB Lot-Sample #: F2D190000-096

Prep Date...: 04/19/12
Analysis Date..: 04/24/12
Prep Batch #...: 2110096

Dilution Factor: 1

		REPORTING	j	
PARAMETER	RESULT	LIMIT	UNITS	METHOD
2-Chlorophenol	ND	5.0	ug/L	SW846 8040A
4-Chloro-3-methylphenol	ND	5.0	ug/L	SW846 8040A
3-Methylphenol &	ND	5.0	ug/L	SW846 8040A
4-Methylphenol				
2-Methylphenol	ND	5.0	ug/L	SW846 8040A
2,4-Dichlorophenol	ND	5.0	ug/L	SW846 8040A
2,6-Dichlorophenol	ND	5.0	ug/L	SW846 8040A
2,4-Dimethylphenol	ND	5.0	ug/L	SW846 8040A
2,4-Dinitrophenol	ND	5.0	ug/L	SW846 8040A
4,6-Dinitro-	ND	5.0	ug/L	SW846 8040A
2-methylphenol				
Dinoseb	ND	5.0	ug/L	SW846 8040A
2-Nitrophenol	ND	5.0	ug/L	SW846 8040A
4-Nitrophenol	ND	5.0	ug/L	SW846 8040A
Pentachlorophenol	ND	5.0	ug/L	SW846 8040A
Phenol	ND	5.0	ug/L	SW846 8040A
2,3,4,6-Tetrachlorophenol	ND	5.0	ug/L	SW846 8040A
2,4,5-Trichloro-	ND	5.0	ug/L	SW846 8040A
phenol				
2,4,6-Trichloro-	ND	5.0	ug/L	SW846 8040A
phenol				
	PERCENT	RECOVERY		
SURROGATE	RECOVERY	LIMITS		
2,4,6-Tribromophenol	75	(54 - 139)	9)	
2-Fluorophenol	88	(34 - 121)	.)	

## NOTE(S):

#### LABORATORY CONTROL SAMPLE DATA REPORT

#### GC Semivolatiles

Client Lot #...: SL1265 Work Order #...: MR3591AC Matrix...... WATER

LCS Lot-Sample#: F2D190000-096

Prep Batch #...: 2110096

Dilution Factor: 1

	SPIKE	MEASURED		PERCENT		
PARAMETER	AMOUNT	AMOUNT	UNITS	RECOVERY	METHOI	)
2-Chlorophenol	100	82.0	ug/L	82	SW846	8040A
4-Chloro-3-methylphenol	100	92.4	ug/L	92	SW846	8040A
3-Methylphenol &	100	86.0	ug/L	86	SW846	8040A
4-Methylphenol						
2-Methylphenol	100	84.5	ug/L	85	SW846	8040A
2,4-Dichlorophenol	100	89.6	ug/L	90	SW846	8040A
2,6-Dichlorophenol	100	86.1	ug/L	86	SW846	8040A
2,4-Dimethylphenol	100	85.0	ug/L	85	SW846	8040A
2,4-Dinitrophenol	100	90.2	ug/L	90	SW846	8040A
4,6-Dinitro-	100	106	ug/L	106	SW846	8040A
2-methylphenol						
Dinoseb	100	94.0	ug/L	94	SW846	8040A
2-Nitrophenol	100	89.1	ug/L	89	SW846	8040A
4-Nitrophenol	100	99.4	ug/L	99	SW846	8040A
Pentachlorophenol	100	106	ug/L	106	SW846	8040A
Phenol	100	85.4	ug/L	85	SW846	8040A
2,3,4,6-Tetrachlorophenol	100	92.5	ug/L	92	SW846	8040A
2,4,5-Trichloro-	100	95.0	ug/L	95	SW846	8040A
phenol						
2,4,6-Trichloro-	100	97.2	ug/L	97	SW846	8040A
phenol						
		PERCENT	RECOVERY			
SURROGATE		RECOVERY	LIMITS	_		
2,4,6-Tribromophenol		99	(43 - 140)			
2-Fluorophenol		83	(38 - 122)			

## NOTE(S):

 ${\bf Calculations} \ are \ performed \ before \ rounding \ to \ avoid \ round-off \ errors \ in \ calculated \ results.$ 

**Bold print denotes control parameters** 

#### MATRIX SPIKE SAMPLE DATA REPORT

#### GC Semivolatiles

Client Lot #...: SL1265 Work Order #...: MR2TE1AD-MS Matrix.....: WATER

MS Lot-Sample #: F2D170442-001 MR2TE1AE-MSD

 Date Sampled...:
 04/13/12
 Date Received...
 04/17/12

 Prep Date.....:
 04/19/12
 Analysis Date...
 04/24/12

Prep Batch #...: 2110096

Dilution Factor: 1

	SAMPLE	SPIKE	MEASRD		PERCNT			
PARAMETER	AMOUNT	AMT	AMOUNT	UNITS	RECVRY	RPD	METHOI	)
2-Chlorophenol	ND	193	160	ug/L	83		SW846	8040A
	ND	189	151	ug/L	80	5.7	SW846	8040A
4-Chloro-3-methylphenol	ND	193	179	ug/L	93		SW846	8040A
	ND	189	169	ug/L	89	5.6	SW846	8040A
3-Methylphenol &	ND	193	168	ug/L	87		SW846	8040A
4-Methylphenol								
	ND	189	159	ug/L	84	5.1	SW846	8040A
2-Methylphenol	ND	193	165	ug/L	85		SW846	8040A
	ND	189	157	ug/L	83	4.9	SW846	8040A
2,4-Dichlorophenol	ND	193	174	ug/L	90		SW846	8040A
	ND	189	166	ug/L	88	5.0	SW846	8040A
2,6-Dichlorophenol	ND	193	168	ug/L	87		SW846	8040A
	ND	189	160	ug/L	85	4.7	SW846	8040A
2,4-Dimethylphenol	ND	193	166	ug/L	86		SW846	8040A
	ND	189	158	ug/L	84	4.8	SW846	8040A
2,4-Dinitrophenol	ND	193	176	ug/L	91		SW846	8040A
	ND	189	164	ug/L	87	6.8	SW846	8040A
4,6-Dinitro-	ND	193	207	ug/L	107		SW846	8040A
2-methylphenol								
	ND	189	187	ug/L	99	10	SW846	8040A
Dinoseb	ND	193	184	ug/L	95		SW846	8040A
	ND	189	164	ug/L	87	12	SW846	8040A
2-Nitrophenol	ND	193	174	ug/L	90		SW846	8040A
	ND	189	165	ug/L	87	5.1	SW846	8040A
4-Nitrophenol	ND	193	197	ug/L	102		SW846	8040A
	ND	189	177	ug/L	93	11	SW846	8040A
Pentachlorophenol	ND	193	209	ug/L	108		SW846	8040A
	ND	189	188	ug/L	99	11	SW846	8040A
Phenol	ND	193	167	ug/L	86		SW846	8040A
	ND	189	157	ug/L	83	6.2	SW846	8040A
2,3,4,6-Tetrachlorophenol	ND	193	181	ug/L	93		SW846	8040A
	ND	189	166	ug/L	88	8.4	SW846	8040A
2,4,5-Trichloro-	ND	193	184	ug/L	95		SW846	8040A
phenol								
	ND	189	173	ug/L	92	6.1	SW846	8040A

(Continued on next page)

#### MATRIX SPIKE SAMPLE DATA REPORT

#### GC Semivolatiles

Client Lot #...: SL1265 Work Order #...: MR2TE1AD-MS Matrix..... WATER MR2TE1AE-MSD

MS Lot-Sample #: F2D170442-001

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	N 0 10	PERCNT RECVRY	RPD	METHOI	)
2,4,6-Trichloro- phenol	ND	193	191	ug/L		99		SW846	8040A
phenor	ND	189	180	ug/L		95	6.2	SW846	8040A
		I	PERCENT		RE	COVERY			
SURROGATE	_	Ī	RECOVERY		LI	MITS			
2,4,6-Tribromophenol		9	99		(5	4 - 139	)		
		9	92		(5	4 - 139	)		
2-Fluorophenol		8	33		(3	4 - 121	)		
•		-	79		(3	4 - 121	)		

## NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

**Bold print denotes control parameters** 

# **PESTICIDES**

SDG #SL1265 156 of 172

Client Sample ID: B2KFF2

#### GC Semivolatiles

Lot-Sample #...: F2D170439-001 Work Order #...: MR2R61AC Matrix..... WATER

Date Sampled...: 04/13/12 Date Received..: 04/17/12 Prep Date....: 04/18/12 Analysis Date..: 04/24/12

Prep Batch #...: 2109122

Dilution Factor: 1 Method.....: SW846 8081A

		REPORTING		
PARAMETER	RESULT	LIMIT	UNITS	MDL
Aldrin	0.025 J,PG	0.050	ug/L	0.010
alpha-BHC	ND	0.050	ug/L	0.010
beta-BHC	0.45 PG	0.050	ug/L	0.013
delta-BHC	ND	0.050	ug/L	0.010
gamma-BHC (Lindane)	ND	0.050	ug/L	0.010
Chlordane (technical)	ND	0.50	ug/L	0.23
4,4'-DDD	ND	0.050	ug/L	0.010
4,4'-DDE	ND	0.050	ug/L	0.010
4,4'-DDT	ND	0.050	ug/L	0.010
Dieldrin	ND	0.050	ug/L	0.010
Endosulfan I	ND	0.050	ug/L	0.010
Endosulfan II	ND	0.050	ug/L	0.010
Endosulfan sulfate	ND	0.050	ug/L	0.010
Endrin	ND	0.050	ug/L	0.017
Endrin aldehyde	ND	0.050	ug/L	0.010
Heptachlor	ND	0.050	ug/L	0.010
Heptachlor epoxide	ND	0.050	ug/L	0.017
Methoxychlor	ND	0.10	ug/L	0.010
Toxaphene	ND	2.0	ug/L	0.66
	PERCENT	RECOVERY		
SURROGATE	RECOVERY	LIMITS	<u> </u>	
Tetrachloro-m-xylene	99	(56 - 136)		
Decachlorobiphenyl	56 *	(74 - 127)		

## NOTE(S):

<sup>\*</sup> Surrogate recovery is outside stated control limits.

J Estimated result. Result is less than RL.

PG The percent difference between the original and confirmation analyses is greater than 40% .

#### METHOD BLANK REPORT

#### GC Semivolatiles

Client Lot #...: SL1265 Work Order #...: MR3TW1AA Matrix.....: WATER

MB Lot-Sample #: F2D180000-122

Prep Date....: 04/18/12
Analysis Date..: 04/23/12
Prep Batch #...: 2109122

Dilution Factor: 1

#### REPORTING PARAMETER RESULT LIMIT UNITS METHOD 0.050 Aldrin ND ug/L SW846 8081A alpha-BHC ND 0.050 ug/L SW846 8081A SW846 8081A beta-BHC ND 0.050 ug/L delta-BHC ND 0.050 ug/L SW846 8081A 0.050 gamma-BHC (Lindane) ND ug/L SW846 8081A Chlordane (technical) 0.50 SW846 8081A ND ug/L 4,4'-DDD ND 0.050 uq/L SW846 8081A 4,4'-DDE ND 0.050 ug/L SW846 8081A 4,4'-DDT ND 0.050 ug/L SW846 8081A Dieldrin SW846 8081A 0.050 ND ug/L Endosulfan I 0.050 SW846 8081A ND uq/L Endosulfan II ND 0.050 ug/L SW846 8081A Endosulfan sulfate ND 0.050 ug/L SW846 8081A Endrin 0.050 SW846 8081A ND ug/L Endrin aldehyde SW846 8081A ND 0.050 ug/L Heptachlor ND 0.050 ug/L SW846 8081A Heptachlor epoxide 0.050 SW846 8081A ND ug/L Methoxychlor ND 0.10 ug/L SW846 8081A Toxaphene ND 2.0 ug/L SW846 8081A RECOVERY PERCENT SURROGATE LIMITS RECOVERY Tetrachloro-m-xylene 92 (56 - 136)

(74 - 127)

## NOTE(S):

Decachlorobiphenyl

Calculations are performed before rounding to avoid round-off errors in calculated results.

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## LABORATORY CONTROL SAMPLE DATA REPORT

#### GC Semivolatiles

Client Lot #...: SL1265 Work Order #...: MR3TW1AC-LCS Matrix..... WATER

LCS Lot-Sample#: F2D180000-122 MR3TW1AD-LCSD

Prep Batch #...: 2109122

Dilution Factor: 1

	SPIKE	MEASURED	)	PERCENT		
PARAMETER	AMOUNT	AMOUNT	UNITS	RECOVERY	RPD	METHOD
Aldrin	0.500	0.462	ug/L	92		SW846 8081A
	0.500	0.463	ug/L	93	0.21	SW846 8081A
alpha-BHC	0.500	0.488	ug/L	98		SW846 8081A
	0.500	0.488	ug/L	98	0.0	SW846 8081A
beta-BHC	0.500	0.456	ug/L	91		SW846 8081A
	0.500	0.459	ug/L	92	0.65	SW846 8081A
delta-BHC	0.500	0.780	ug/L	156		SW846 8081A
	0.500	0.791	ug/L	158	1.4	SW846 8081A
gamma-BHC (Lindane)	0.500	0.477	ug/L	95		SW846 8081A
_	0.500	0.472	ug/L	94	1.0	SW846 8081A
4,4'-DDD	0.500	0.519	ug/L	104		SW846 8081A
	0.500	0.513	ug/L	103	1.2	SW846 8081A
4,4'-DDE	0.500	0.474	ug/L	95		SW846 8081A
	0.500	0.482	ug/L	96	1.7	SW846 8081A
4,4'-DDT	0.500	0.505	ug/L	101		SW846 8081A
	0.500	0.495	ug/L	99	2.0	SW846 8081A
Dieldrin	0.500	0.479	ug/L	96		SW846 8081A
	0.500	0.479	ug/L	96	0.0	SW846 8081A
Endosulfan I	0.500	0.389	ug/L	78		SW846 8081A
	0.500	0.388	ug/L	78	0.25	SW846 8081A
Endosulfan II	0.500	0.399	ug/L	80		SW846 8081A
	0.500	0.396	ug/L	79	0.75	SW846 8081A
Endosulfan sulfate	0.500	0.465	ug/L	93		SW846 8081A
	0.500	0.460	ug/L	92	1.1	SW846 8081A
Endrin	0.500	0.503	ug/L	101		SW846 8081A
	0.500	0.502	ug/L	100	0.19	SW846 8081A
Endrin aldehyde	0.500	0.507	ug/L	101		SW846 8081A
	0.500	0.499	ug/L	100	1.6	SW846 8081A
Heptachlor	0.500	0.523	ug/L	105		SW846 8081A
	0.500	0.501	ug/L	100	4.3	SW846 8081A
Heptachlor epoxide	0.500	0.472	ug/L	94		SW846 8081A
	0.500	0.473	ug/L	95	0.21	SW846 8081A
Methoxychlor	0.500	0.545	ug/L	109		SW846 8081A
	0.500	0.531	ug/L	106	2.6	SW846 8081A
			PERCENT	RECOVERY		
SURROGATE			RECOVERY	LIMITS		
Tetrachloro-m-xylene			92	(66 - 127	)	
			94	(66 - 127)	)	
Decachlorobiphenyl			82	(76 - 120)	)	
			81	(76 - 120)	)	

(Continued on next page)

## LABORATORY CONTROL SAMPLE DATA REPORT

#### GC Semivolatiles

Client Lot #...: SL1265 Work Order #...: MR3TW1AC-LCS Matrix.....: WATER

LCS Lot-Sample#: F2D180000-122 MR3TW1AD-LCSD

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

**Bold print denotes control parameters** 

SDG #SL1265 160 of 172

## **PAHs**

SDG #SL1265 161 of 172

## Client Sample ID: B2KFF2

### HPLC

Lot-Sample #...: F2D170439-001 Work Order #...: MR2R61AD Matrix..... WATER

 Date Sampled...:
 04/13/12
 Date Received...:
 04/17/12

 Prep Date.....:
 04/18/12
 Analysis Date...:
 04/25/12

Prep Batch #...: 2109121

Dilution Factor: 1 Method.....: SW846 8310

		REPORTIN	īG	
PARAMETER	RESULT	LIMIT	UNITS	MDL
Acenaphthene	ND	5.0	ug/L	0.65
Acenaphthylene	9.6 S	5.0	ug/L	0.44
Anthracene	0.068 J,B,S	1.0	ug/L	0.020
Benzo(a)anthracene	ND	1.0	ug/L	0.063
Benzo(b) fluoranthene	ND	1.0	ug/L	0.051
Benzo(k)fluoranthene	ND	1.0	ug/L	0.074
Benzo(ghi)perylene	ND	1.0	ug/L	0.16
Benzo(a)pyrene	ND	1.0	ug/L	0.075
Chrysene	ND	1.0	ug/L	0.035
Dibenz(a,h)anthracene	ND	1.0	ug/L	0.15
Fluoranthene	ND	1.0	ug/L	0.18
Fluorene	ND	1.0	ug/L	0.071
Indeno(1,2,3-cd)pyrene	ND	1.0	ug/L	0.14
Naphthalene	ND	5.0	ug/L	0.34
Phenanthrene	ND	1.0	ug/L	0.30
Pyrene	0.56 J,S	1.0	ug/L	0.083
	PERCENT	RECOVERY		
SURROGATE	RECOVERY	LIMITS		
p-Terphenyl	84	(60 - 98	)	

## NOTE(S):

S Positive analyte detection appears questionable during spectral confirmation.

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

METHOD

SW846 8310

SW846 8310

SW846 8310

SW846 8310

#### METHOD BLANK REPORT

### HPLC

REPORTING

LIMIT UNITS

ug/L

ug/L

ug/L

ug/L

Client Lot #...: SL1265 Work Order #...: MR3TV1AA Matrix.....: WATER

**MB** Lot-Sample #: F2D180000-121

Prep Date...: 04/18/12
Analysis Date..: 04/25/12
Prep Batch #...: 2109121

RESULT

Dilution Factor: 1

PARAMETER

Acenaphthene	ND	5.0	ug/L	SW846 8310	
Acenaphthylene	ND	5.0	ug/L	SW846 8310	
Anthracene	0.040 J	1.0	ug/L	SW846 8310	
Benzo(a)anthracene	ND	1.0	ug/L	SW846 8310	
Benzo(b) fluoranthene	ND	1.0	ug/L	SW846 8310	
Benzo(k)fluoranthene	ND	1.0	ug/L	SW846 8310	
Benzo(ghi)perylene	ND	1.0	ug/L	SW846 8310	
Benzo(a)pyrene	ND	1.0	ug/L	SW846 8310	
Chrysene	ND	1.0	ug/L	SW846 8310	
Dibenz(a,h)anthracene	ND	1.0	ug/L	SW846 8310	
Fluoranthene	ND	1.0	ug/L	SW846 8310	
Fluorene	ND	1.0	ug/L	SW846 8310	

1.0

5.0

1.0

1.0

	PERCENT	RECOVERY			
SURROGATE	RECOVERY	LIMITS			
p-Terphenyl	90	(60 - 98)			

ND

ND

ND

ND

## NOTE(S):

Pyrene

Naphthalene

Phenanthrene

Calculations are performed before rounding to avoid round-off errors in calculated results.

Indeno(1,2,3-cd)pyrene

J Estimated result. Result is less than RL.

#### LABORATORY CONTROL SAMPLE DATA REPORT

#### HPLC

Client Lot #...: SL1265 Work Order #...: MR3TV1AC-LCS Matrix..... WATER

LCS Lot-Sample#: F2D180000-121 MR3TV1AD-LCSD

Prep Date....: 04/18/12 Analysis Date..: 04/25/12

Prep Batch #...: 2109121

Dilution Factor: 1

	SPIKE	MEASURED	)	PERCENT		
PARAMETER	AMOUNT	AMOUNT	UNITS	RECOVERY	RPD	METHOD
Acenaphthene	20.0	16.0	ug/L	80		SW846 8310
	20.0	18.2	ug/L	91	13	SW846 8310
Acenaphthylene	40.0	32.0	ug/L	80		SW846 8310
	40.0	35.8	ug/L	89	11	SW846 8310
Anthracene	2.00	1.71	ug/L	86		SW846 8310
	2.00	1.92	ug/L	96	11	SW846 8310
Benzo (a) anthracene	2.00	1.78	ug/L	89		SW846 8310
	2.00	1.90	ug/L	95	6.7	SW846 8310
Benzo (b) fluoranthene	4.00	3.61	ug/L	90		SW846 8310
	4.00	3.82	ug/L	95	5.6	SW846 8310
Benzo(k) fluoranthene	2.00	1.82	ug/L	91		SW846 8310
	2.00	1.93	ug/L	97	6.1	SW846 8310
Benzo(ghi)perylene	4.00	3.61	ug/L	90		SW846 8310
	4.00	3.83	ug/L	96	5.8	SW846 8310
Benzo (a) pyrene	2.00	1.80	ug/L	90		SW846 8310
	2.00	1.92	ug/L	96	6.4	SW846 8310
Chrysene	2.00	1.78	ug/L	89		SW846 8310
	2.00	1.89	ug/L	94	6.1	SW846 8310
Dibenz (a, h) anthracene	4.00	3.57	ug/L	89		SW846 8310
	4.00	3.81	ug/L	95	6.6	SW846 8310
Fluoranthene	4.00	3.61	ug/L	90		SW846 8310
	4.00	3.94	ug/L	98	8.7	SW846 8310
Fluorene	4.00	3.29	ug/L	82		SW846 8310
	4.00	3.71	ug/L	93	12	SW846 8310
Indeno (1, 2, 3-cd) pyrene	2.00	1.82	ug/L	91		SW846 8310
	2.00	1.96	ug/L	98	7.5	SW846 8310
Naphthalene	20.0	15.8	ug/L	79		SW846 8310
	20.0	17.8	ug/L	89	12	SW846 8310
Phenanthrene	2.00	1.72	ug/L	86		SW846 8310
	2.00	1.92	ug/L	96	11	SW846 8310
Pyrene	2.00	1.78	ug/L	89		SW846 8310
	2.00	1.94	ug/L	97	8.6	SW846 8310
			DEDGEME	DECOMEDY		
CIDDOCATE			PERCENT	RECOVERY		
SURROGATE			RECOVERY	LIMITS 100	_	
p-Terphenyl			85	(56 - 108		
			86	(56 - 108	)	

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

**Bold print denotes control parameters** 

## **WET CHEMISTRY**

SDG #SL1265 165 of 172

Client Sample ID: B2KFW5

General Chemistry

Lot-Sample #...: F2D120462-001 Work Order #...: MR0FX Matrix.....: WATER

PREPARATION- PREPARAMETER
Total Sulfide

RESULT
ND
RESULT
ND
RESULT
MG/L
SW846 9030

PREPARATION- PREPARATION- PREPARAMETER
SW846 9030

04/17/12
2108057

Dilution Factor: 1 MDL..... 0.083

Client Sample ID: B2KFW6

General Chemistry

Lot-Sample #...: F2D120462-002 Work Order #...: MR0F1 Matrix..... WATER

 PARAMETER
 RESULT
 RL
 UNITS
 METHOD
 ANALYSIS
 DATE
 BATCH #

 Total Sulfide
 ND
 1.0
 mg/L
 SW846 9030
 04/17/12
 2108057

Dilution Factor: 1 MDL..... 0.083

Client Sample ID: B2KFX5

General Chemistry

Lot-Sample #...: F2D130430-001 Work Order #...: MR07H Matrix..... WATER

 PARAMETER
 RESULT
 RL
 UNITS
 METHOD
 ANALYSIS
 DATE
 BATCH #

 Total Sulfide
 ND
 1.0
 mg/L
 SW846 9030
 04/17/12
 2108057

Dilution Factor: 1 MDL..... 0.083

## METHOD BLANK REPORT

## General Chemistry

Client Lot #...: SL1265 Matrix..... WATER

Dilution Factor: 1

NOTE(S):

## LABORATORY CONTROL SAMPLE DATA REPORT

## General Chemistry

Client Lot #...: SL1265 Matrix.....: WATER

	SPIKE	MEASURE	D	PE	CRCNT			PRE	PARAT]	ION-	PREP	
PARAMETER	AMOUNT	AMOUNT	UNITS	RE	CVRY	METHOI	)	ANA	LYSIS	DATE	BATCH	#
Total Sulfide	е		Work Order	#: M	IR2FW1	AC LO	S Lot-Sampl	e#:	F2D170	0-000	57	
	10.0	9.40	mg/L	94		SW846	9030		04/17/	12	210805	57

Dilution Factor: 1

## NOTE(S):

#### MATRIX SPIKE SAMPLE DATA REPORT

## General Chemistry

Client Lot #...: SL1265 Matrix...... WATER

 SAMPLE
 SAMPLE
 SPIKE
 MEASURED
 PERCENT
 PREPARATION - PREPARATI

Dilution Factor: 1

## NOTE(S):

## SAMPLE DUPLICATE EVALUATION REPORT

## General Chemistry

Work Order #...: MROFX-SMP Client Lot #...: F2D120462 Matrix..... WATER

MR0FX-DUP

		DUPLICATE			RPD		PREPARATION-	PREP
PARAM	RESULT	RESULT	UNITS	RPD	LIMIT	METHOD	ANALYSIS DATE	BATCH #
Total	Sulfide					SD Lot-Sample #:	F2D120462-001	
	ND	ND	mg/L	0	(0-20)	SW846 9030	04/17/12	2108057
		1	Dilution Fact	or. 1				

Dilution Factor: 1